

fischertechnik 

PROFI

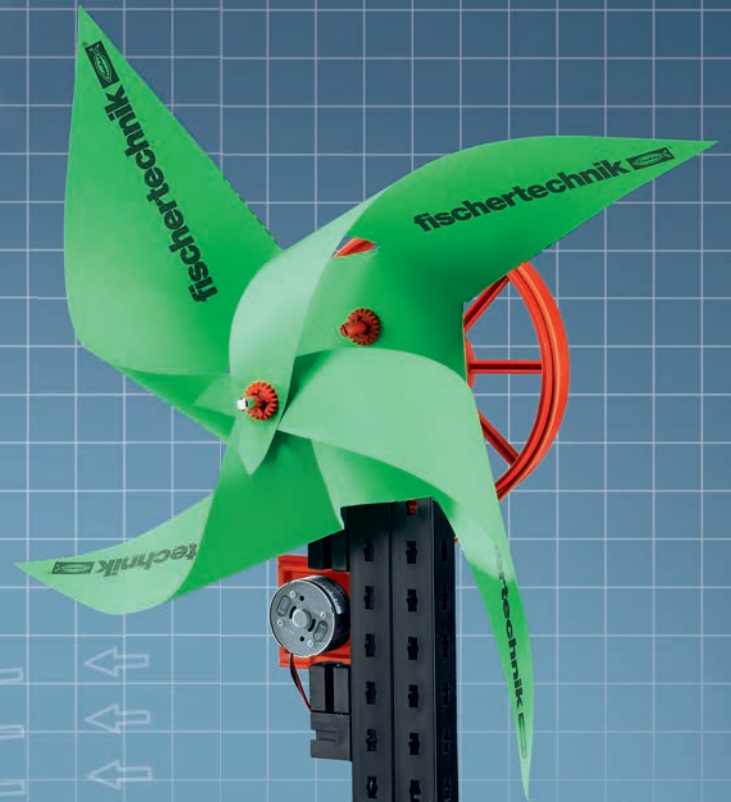
Bauanleitung
Assembly instruction
Instructions de montage
Bouwhandleiding
Instrucciones de construcción
Manual de montagem
Istruzioni di montaggio
Инструкция по сборке
安装说明书

Didactic Information

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Portal



Oeco Energy
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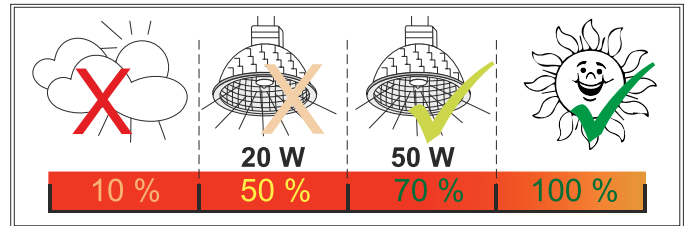
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- Mit dem fischertechnik eLearning Portal geben wir Ihnen die Möglichkeit, noch mehr Hintergrundwissen zum Thema des Baukastens zu erhalten. Dabei stehen Ihnen didaktische Inhalte sowie technische Hintergrundinformationen, lehrreiche Begleitinformationen, Videos, Dokumentationen und vieles mehr zur Verfügung. Über **www.fischertechnik-elearning.com** gelangen Sie direkt zum eLearning Portal. Wir wünschen viel Spaß beim spielerischen Lernen und Entdecken mit fischertechnik!
- With the fischertechnik eLearning portal, we are giving you the opportunity to obtain even more background knowledge on the topic of the construction set. Didactic contents, technical background information, instructive accompanying information, videos, documentary films and much more are at your disposal. You can access the eLearning portal directly via **www.fischertechnik-elearning.com**. We hope that you have fun learning and discovering through play with fischertechnik!
- Avec le portail eLearning de fischertechnik, vous pouvez parfaire vos connaissances au sujet de la boîte de construction. Vous y trouverez des contenus didactiques et des informations techniques, d'autres informations complémentaires, des vidéos, de la documentation et bien plus encore. Cliquez sur **www.fischertechnik-elearning.com** pour accéder directement à notre portail. Nous vous souhaitons une découverte et un apprentissage pleins de plaisir avec fischertechnik !
- Met het fischertechnik eLearning portaal geven wij u de mogelijkheid, nog meer achtergrondkennis over het thema van het modulaire systeem te verkrijgen. Daarbij staan u didactieve inhoud alsmede technische achtergrondinformatie, educatieve begeleidende informatie, video's, documentaties en nog veel meer ter beschikking. Via **www.fischertechnik-elearning.com** komt u direct bij het eLearning portaal. Wij wensen veel plezier bij het spelenderwijs leren en ontdekken met fischertechnik!
- Con el portal de aprendizaje electrónico de fischertechnik le ofrecemos la oportunidad de obtener más conocimientos básicos sobre el tema de los módulos. De este modo, se pone a su disposición contenido didáctico, así como información básica técnica, información adicional instructiva, vídeos, documentos y muchas cosas más. A través de **www.fischertechnik-elearning.com** podrá acceder directamente al portal de aprendizaje electrónico. ¡Esperamos que se divierta aprendiendo y descubriendo jugando con fischertechnik!
- Com o portal de eLearning da fischertechnik damos lhe a possibilidade de obter ainda mais conhecimentos aprofundados sobre os kits de construção. Estão disponíveis conteúdos didáticos, informações técnicas de fundo, informações auxiliares úteis, vídeos, documentações e muito mais. Em **www.fischertechnik-elearning.com** pode aceder diretamente ao portal de eLearning. Esperamos que se divirta muito durante a aprendizagem e as descobertas com a fischertechnik!
- Con il portale eLearning di fischertechnik vi diamo la possibilità di accumulare maggiori informazioni di base sul tema delle scatole di montaggio. Vi troverete contenuti didattici e informazioni tecniche di background, informazioni accessorie molto istruttive, video, documenti e molto altro ancora. Tramite **www.fischertechnik-elearning.com** potete raggiungere direttamente il portale eLearning. Vi auguriamo buon divertimento nell'apprendere giocando e nella scoperta di fischertechnik!
- Обучающий Интернет-портал компании fischertechnik предлагает вам возможность получить больше базовых знаний по теме конструирования. В вашем распоряжении дидактические материалы, а также вводная техническая информация, поучительная сопроводительная информация, видеоматериалы, документация и многое другое. По ссылке **www.fischertechnik-elearning.com** вы попадаете прямо на обучающий Интернет-портал. Желаем вам приятно провести время в ходе игрового обучения и получения новых знаний с компанией fischertechnik!
- 通过 fischertechnik eLearning 电子学习门户网站，我们为您提供更多关于积木的背景知识。您可获得关于教学内容以及技术方面的背景知识、丰富的教学经验分享、视频、文档和其他实用内容。登陆 **www.fischertechnik-elearning.com** 访问我们的 elearning 门户网站。祝 fischertechnik 带给您更多学习和探索的乐趣！

- Die Solarzellen funktionieren bei Sonnenlicht oder mit einer Halogenlampe. Energiesparlampen oder Leuchtstoffröhren sind nicht geeignet.
- The solar cells work with sunlight or with a halogen light. CFL bulbs or fluorescent lights are not suitable.
- Les cellules solaires fonctionnent si elles sont exposées aux rayons du soleil ou à la lumière d'une lampe halogène. Les lampes à faible consommation d'énergie ou les tubes fluorescents ne sont pas appropriés.
- De zonnecellen werken op zonlicht of met behulp van een halogeenlamp. Spaarlampen of TL-lampen zijn niet geschikt.
- Las celdas solares funcionan con luz solar o una lámpara halógena. Lámparas de ahorro de energía o tubos fluorescentes no son apropiados.
- As células solares funcionam com luz solar ou uma lâmpada de halogênio. Lâmpadas economizadoras de energia ou lâmpadas fluorescentes não são adequadas.

- Le celle solari funzionano con la luce del sole o con una lampada alogena. Le lampade a risparmio energetico e i tubi fluorescenti non sono adatti.
- Solární panely fungují při nabíjení slunečním světlem nebo světlem z halogenové lampy. Lampy s energeticky úspornými žárovkami nebo zářivky nejsou vhodné.
- Солнечные элементы работают от солнечного света или галогенной лампы. Энергосберегающие и люминесцентные лампы не подходят.



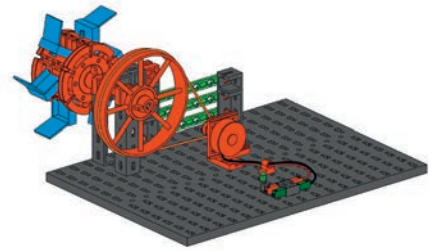
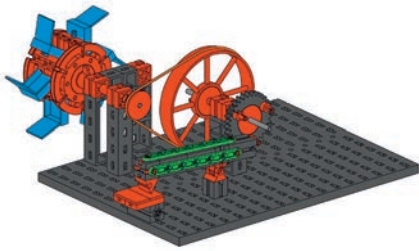
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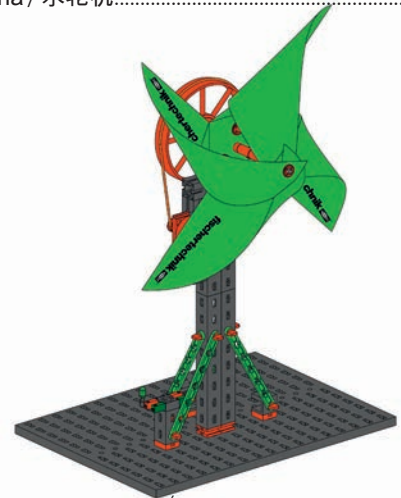
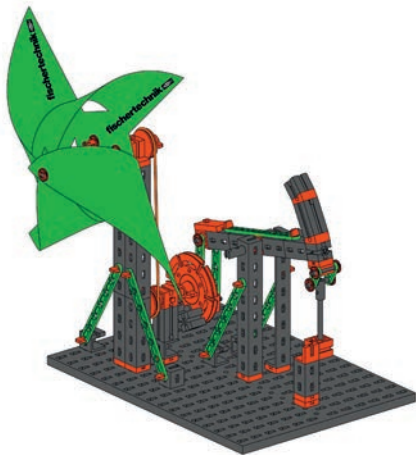
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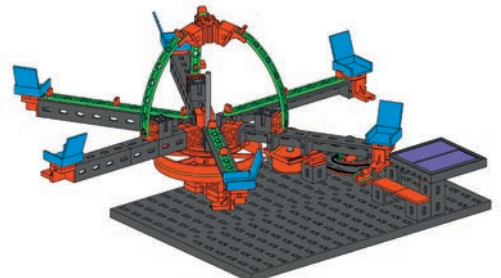
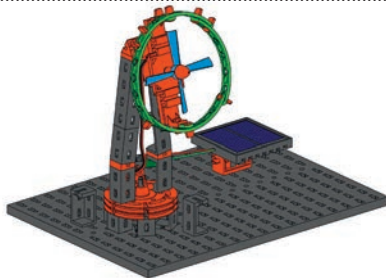
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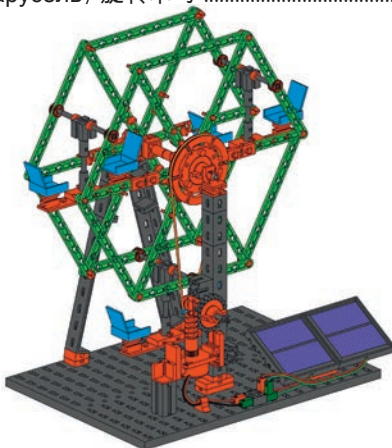
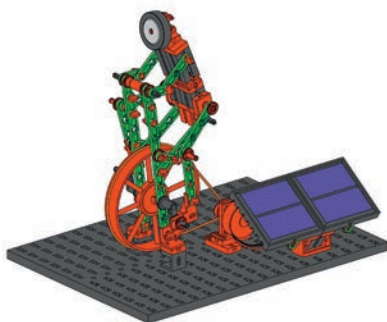
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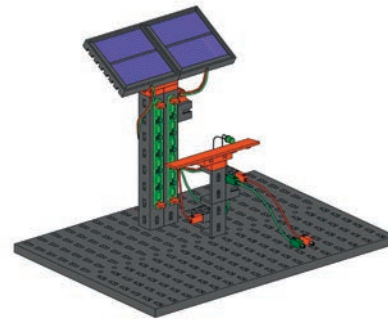
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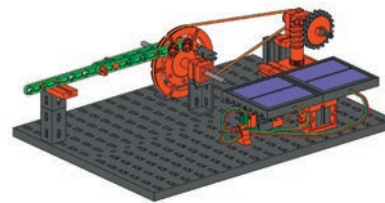
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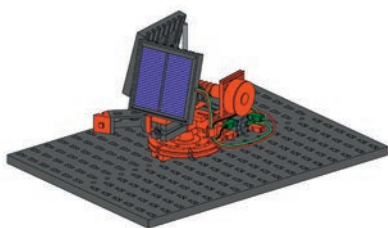
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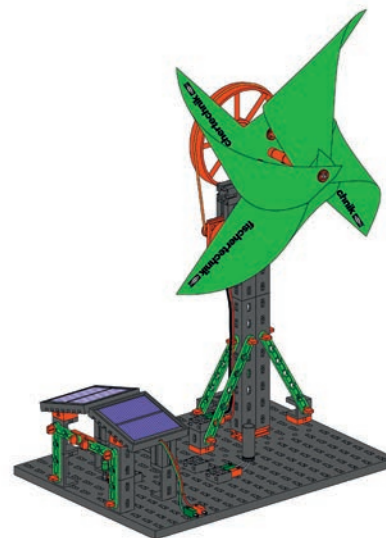
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












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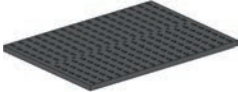














Einzelteilübersicht
Spare parts list
Liste des pièces détachées



Onderdelenoverzicht
Lista da piezas
Resumo de peça individual

Singoli componenti
Перечень деталей
零件概览

	19 317 1 x
	31 010 2 x
	31 011 3 x
	31 019 2 x
	31 021 1 x
	31 031 1 x
	31 036 1 x
	31 058 5 x
	31 124 2 x
	31 336 11 x
	31 337 9 x
	31 426 1 x
	31 436 3 x
	31 597 8 x
	31 667 4 x
	31 671 2 x
	31 674 3 x

	31 690 3 x
	31 848 6 x
	31 915 2 x
	31 916 1 x
	31 981 4 x
	31 982 32 x
	31 983 3 x
	32 064 6 x
	32 071 4 x
	32 228 2 x
	32 229 1 x
	32 230 1 x
	32 850 3 x
	32 870 1 x
	32 879 2 x
	32 881 4 x
	32 913 2 x

	32 985 1 x
	34 995 2 x
	35 031 5 x
	35 033 1 x
	35 049 6 x
	35 051 6 x
	35 063 3 x
	35 064 1 x
	35 065 3 x
	35 069 1 x
	35 088 2 x
	35 405 3 x
	35 969 2 x
	35 980 2 x
	36 227 6 x
	36 264 1 x
	36 293 4 x

	36 323 24 x
	36 324 12 x
	36 334 15 x
	36 337 1 x
	36 443 1 x
	36 920 6 x
	36 921 2 x
	36 922 4 x
	36 950 2 x
	36 973 1 x
	37 031 1 x
	37 237 10 x
	37 468 12 x
	37 679 8 x
	37 681 1 x
	37 783 1 x
	37 858 1 x

Einzelteilübersicht
Spare parts list
Liste des pièces détachées

	38 216 4 x
	38 240 6 x
	38 241 2 x
	38 245 3 x
	38 413 3 x
	38 423 6 x
	38 428 6 x

Onderdelenoverzicht
Lista da piezas
Resumo de peça individual

	68 451 1 x
	116 913 2 x
	136 775 1 x
	137 103 1 x
	137 357 1 x
	143 235 4 x

	143 236 14 x
	146 142 2 x
	146 529 4 x
	146 531 4 x
	146 532 4 x
	146 533 12 x
	146 534 1 x

Singoli componenti
Перечень деталей
零件概览

	146 535 2 x
	35 608 1 x
	147 009 1 x
	156 494 1 x

Montagetipps
Tips for assembly
Tuyaux pour le montage

Montagetips
Consejos para el montaje
"Dicas" para montagem

Consigli per il montaggio
Советы по сборке
装配建议

Kabel und Stecker
Plugs and cables
Fiches et des câbles

Stekkers en cables
Enchufes en cables
Cabos e contatos

Cavi e connettori
Провода и штекеры
电缆和插头

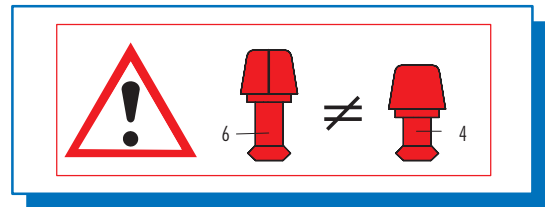
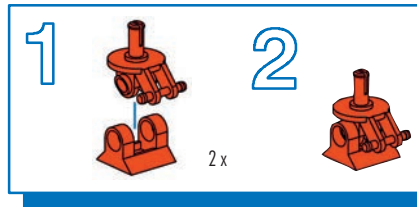
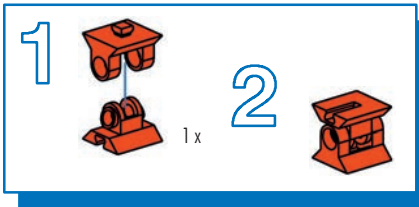
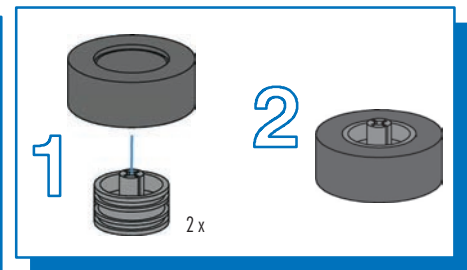
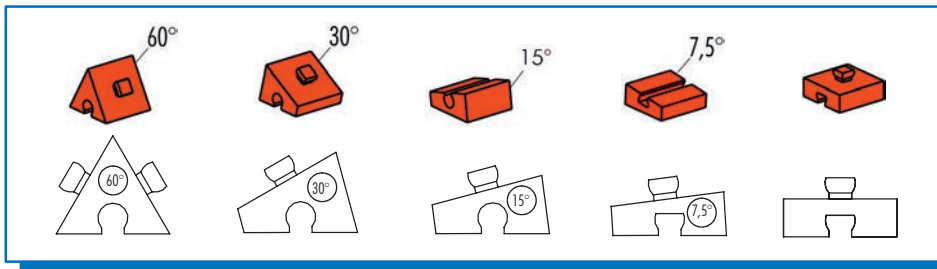
- 1
- 2
- 3
- 4

- 1
- 2

Langer Draht + = roter Stecker
 Long wire + = red plug
 Fil long + = fiche rouge
 Lange draad + = rode stekker
 Alambre largo + = conector rojo
 Fio longo + = conector vermelho
 Filo lungo + = connettore rosso
 Длинный провод + = красный штекер
 长电线 + = 红色插头

Kurzer Draht - = grüner Stecker
 Short wire - = green plug
 Fil court - = fiche verte
 Korte draad - = groene stekker
 Alambre corto - = conector verde
 Fio curto - = conector verde
 Filo corto - = connettore verde
 Короткий провод - = зеленый штекер
 短电线 - = 绿色插头

25 cm
20 cm
15 cm
10 cm
5 cm



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Indicaciones de seguridad
Observações sobre segurança

Informazioni per la sicurezza
Указания по технике безопасности
安全指南

Achtung!
 Die elektrischen Bauteile Solar-Micromotor, LED und Goldcap dürfen nur mit der vorgeschriebenen Spannung von max. 3 V betrieben werden. Auf keinen Fall an andere 9V-fischertechnik-Stromversorgungen anschließen.

Caution!
 The Solar Micromotor electric components, LED and Goldcap may only be operated with the prescribed voltage of 2 V. Do not ever connect them to other 9V fischertechnik power supplies.

Attention!
 Les composants électriques micromoteur solaire, LED et Goldcap ne doivent fonctionner que sous la tension prescrite de 2 V. Ne les raccorder en aucun cas aux autres systèmes d'alimentation électriques de 9 V de fischertechnik.

Pas op!
 De elektrische componenten zonne-energie-micromotor, LED en Goldcap mogen alleen worden gebruikt met de voorgeschreven spanning van 2V. Sluit ze in geen geval aan op andere 9V-fischertechnik-stroomvoorzieningen.

¡Atención!
 Los componentes eléctricos Micromotor solar, LED y Goldcap sólo deben ser operados con la tensión prescrita de 2 V. En ningún caso deben conectarse a otras fuentes de alimentación de 9 V de fischertechnik.

Atenção!
 Os componentes elétricos Solar-Micromotor, LED e Goldcap só podem ser operados com a tensão prescrita de 2V. Nunca ligar a outras fontes de alimentação de 9V da fischertechnik.

Attenzione!
 I componenti elettrici: micromotore solare, LED e goldcap devono funzionare soltanto con la tensione prevista di 2V. Non eseguire assolutamente l'allacciamento ad altri alimentatori fischertechnik da 9V.

Внимание!
 Такие электрические детали, как микродвигатель, светодиод и конденсатор Goldcap могут работать только с напряжением 2В. Категорически запрещается подключать их к источникам электропитания fischertechnik с напряжением 9В.

注意!
 只允许用规定的2V的电压来运行电气部件如太阳能微型电机, LED 和 Goldcap。无论如何不得与其他的 9V 慧鱼技术电源部件相连接。

Achtung! Verletzungsgefahr an Bauteilen mit funktionsbedingten scharfen Kanten und Spitzen!

Caution! Be careful not to hurt yourself on components with sharp or pointed edges!

Attention! Risque de blessure sur les éléments comportant des arêtes et o pointes vives indispensables au bon fonctionnement!

Let op! U kunt zich bezeren aan bouwstenen met sjerpe randen of punten!

Atención! ¡cuidado, no te hagas daño con los componentes con bordes afilados o puntiagudos!

Atenção! Perigo de ferimentos em peças componentes com cantos vivos e pontas obrigatórios para o funcionamento!

Attenzione! Pericolo di lesioni dovute a componenti con spigoli vivi e punte per motivi funzionali!

Будьте осторожны! Об острые края деталей и и наконечники можно порезаться!

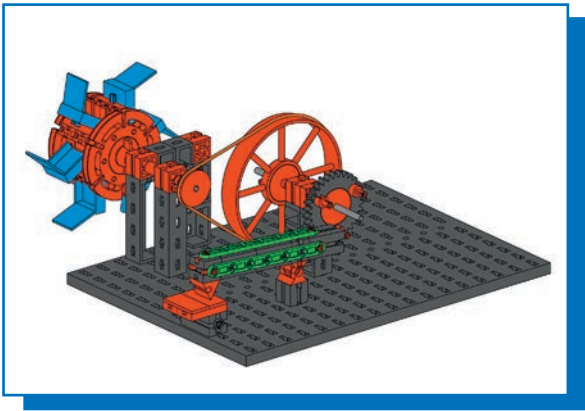
注意!
 因功能需要而带有锋利的棱边和尖角的部件可能会带来受伤危险!

Alle Einzelteile, insbesondere bewegliche Teile sind falls notwendig zu warten und zu reinigen.
All components, especially moving parts, should be maintained and cleaned as necessary.
Toutes les pièces détachées et en particulier les pièces mobiles, sont, si nécessaire, à entretenir et à nettoyer.
Alle onderdelen, vooral de bewegende delen, kunnen, indien noodzakelijk, onderhouden en gereinigd worden.
Es necesario limpiar y mantener en buen estado todas las diferentes piezas - especialmente las piezas móviles.

Caso necessário, todas as peças individuais, especialmente peças móveis, tem que ser submetidas à manutenção e ser limpadas.
Se necessario, tutti i singoli componenti, soprattutto le parti mobili, si devono eventualmente sottoporre a manutenzione e pulizia.
Все детали, особенно подвижные, требуют ухода и чистки.
必要时应保养和清洁所有零件, 尤指运动部件。

 Hinweise zum Umweltschutz / Instructions for Environmental Protection / Remarques de protection de l'environnement / Bescherming van het milieu / Notas con respecto a la protección del medio ambiente / Instruções para a proteção do meio ambiente / Indicazioni sulla tutela ambientale / Указания по охране окружающей среды / 有关环保的提示 :

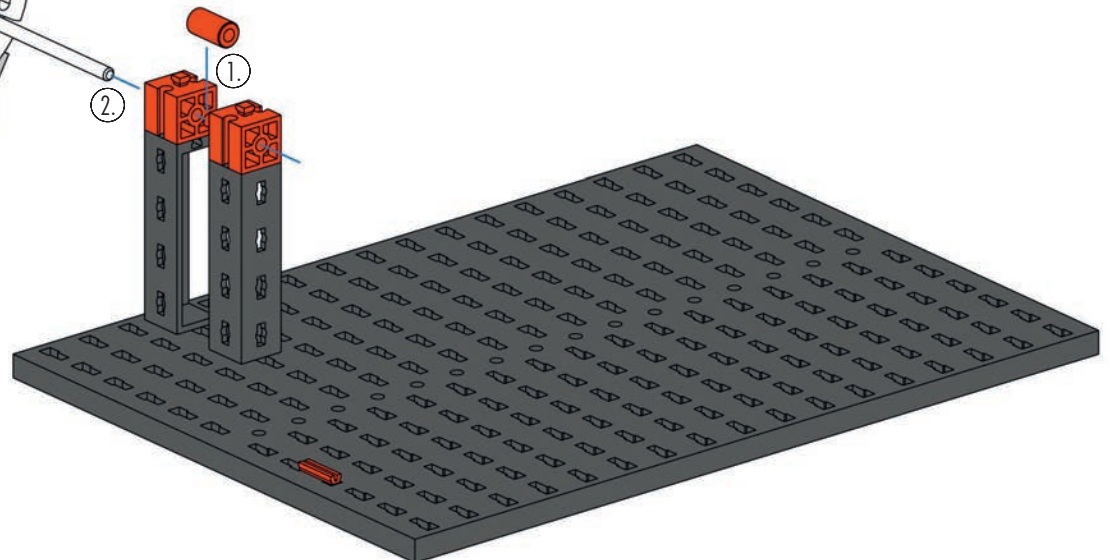
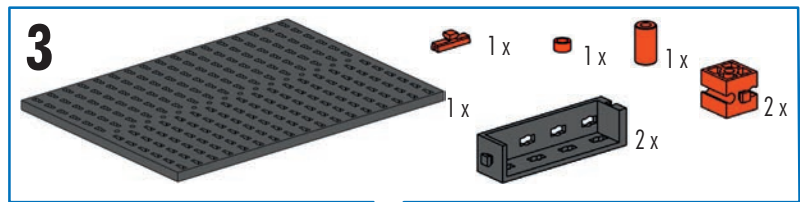
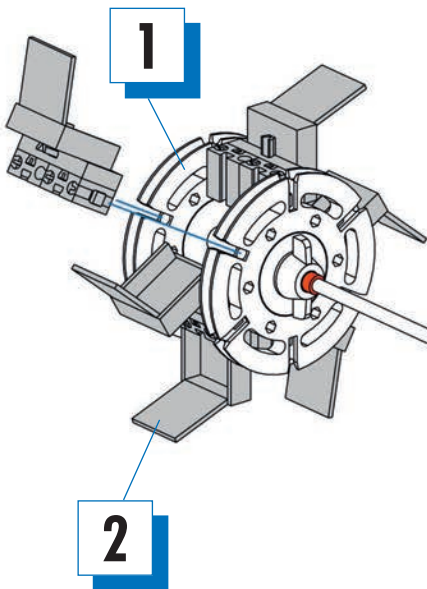
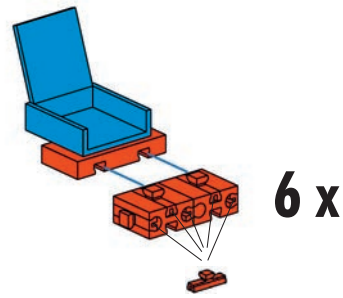
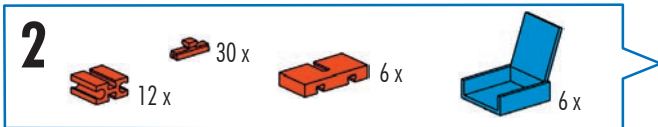
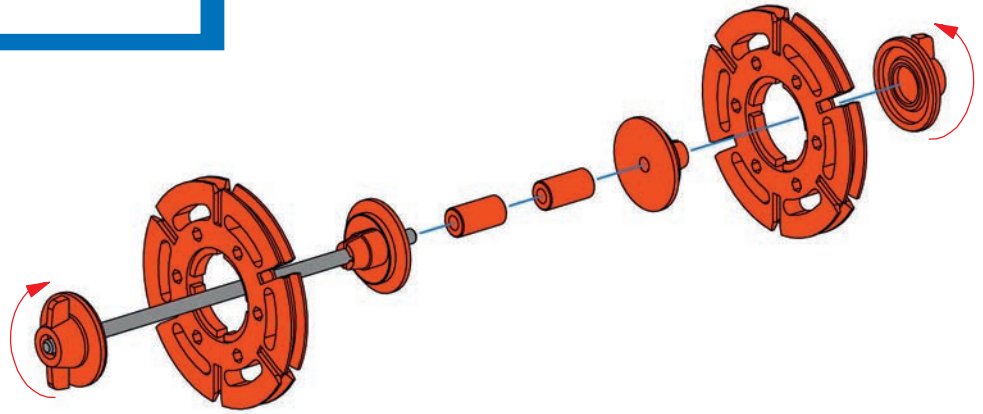
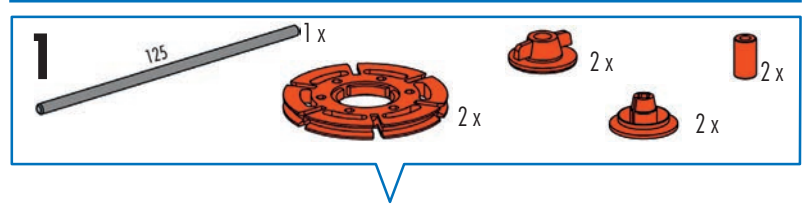
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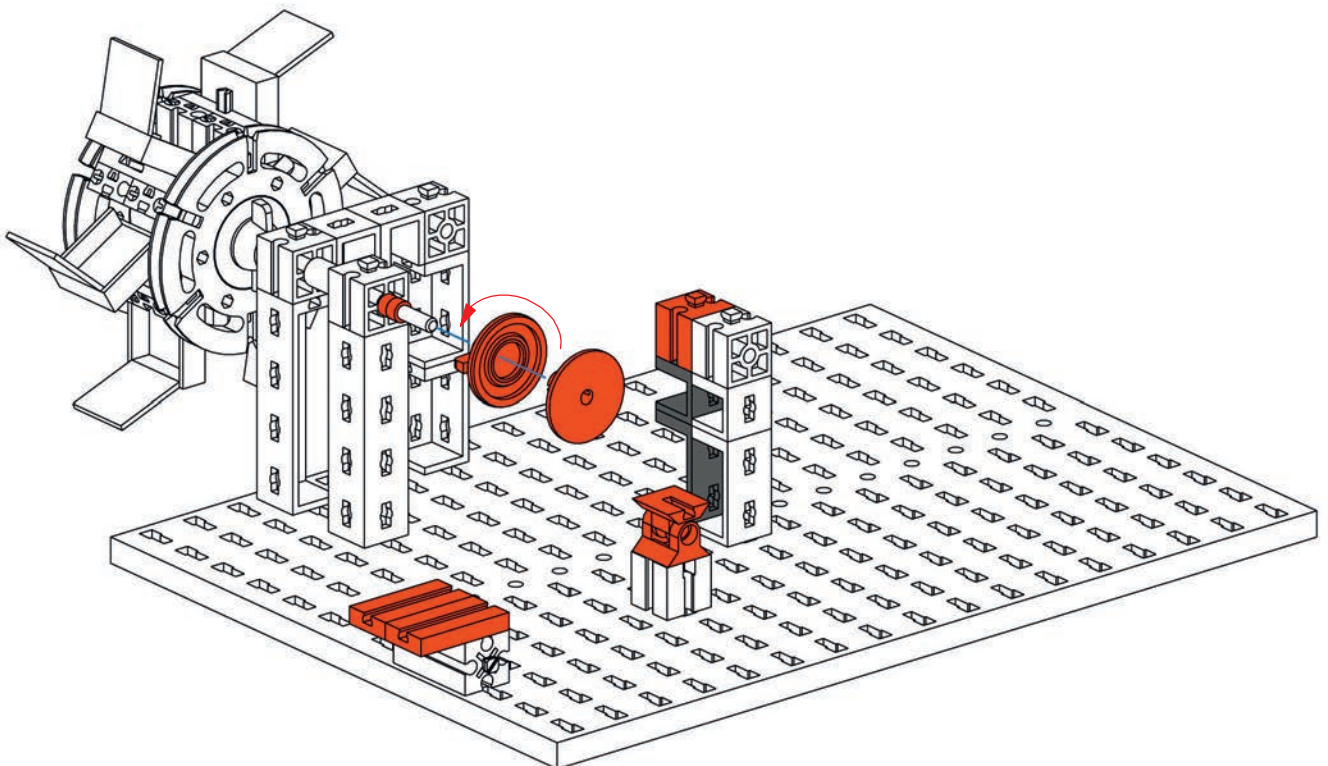
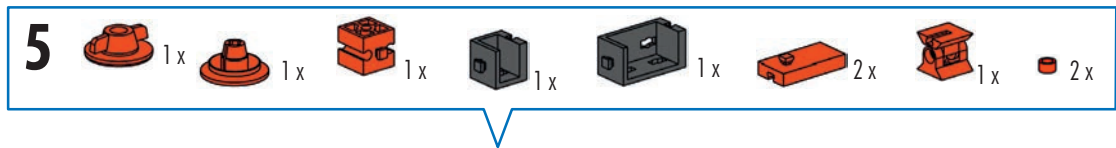
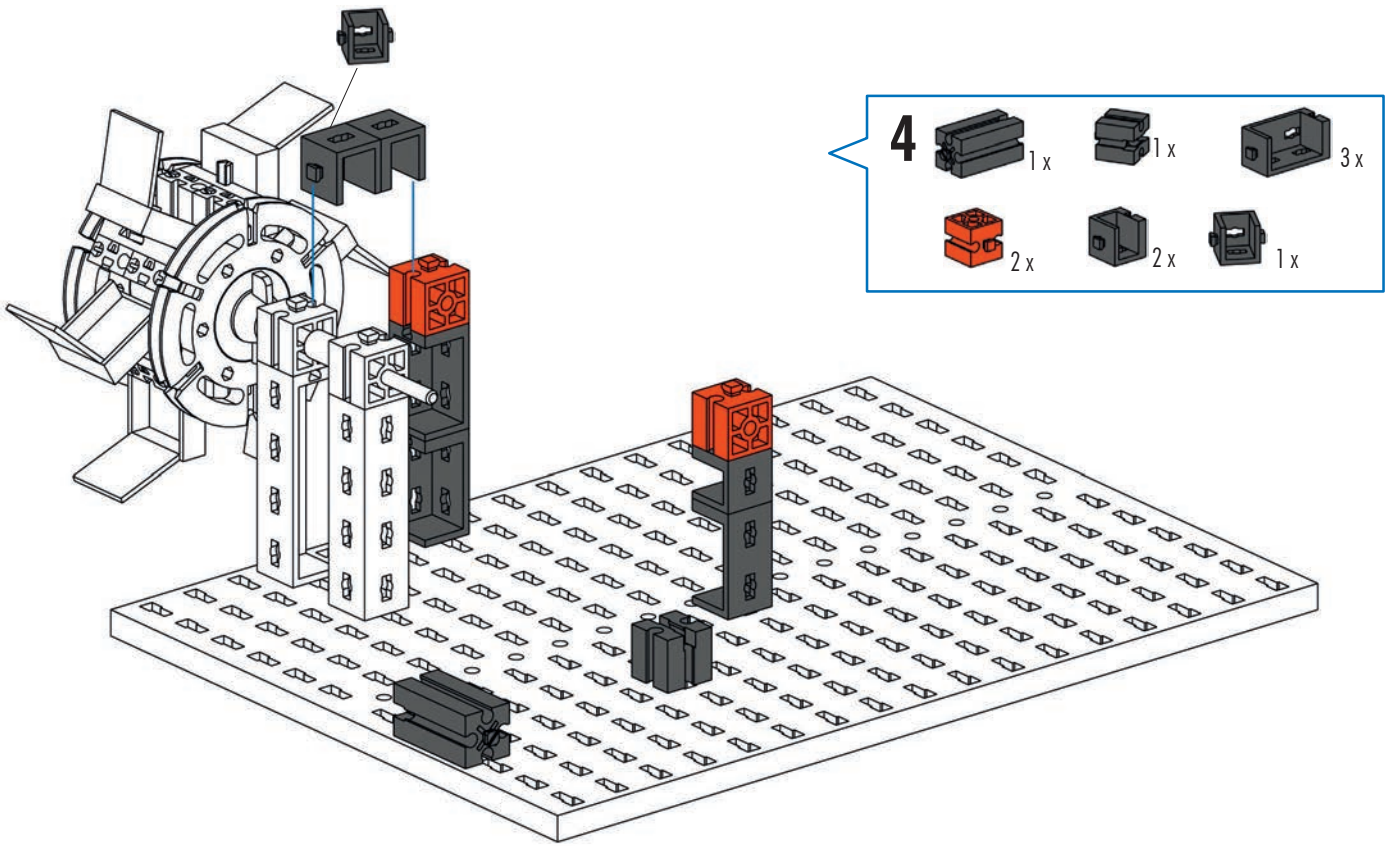


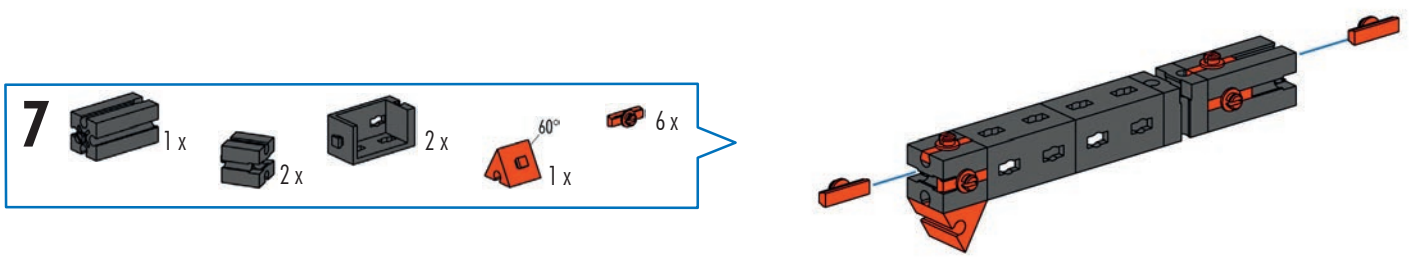
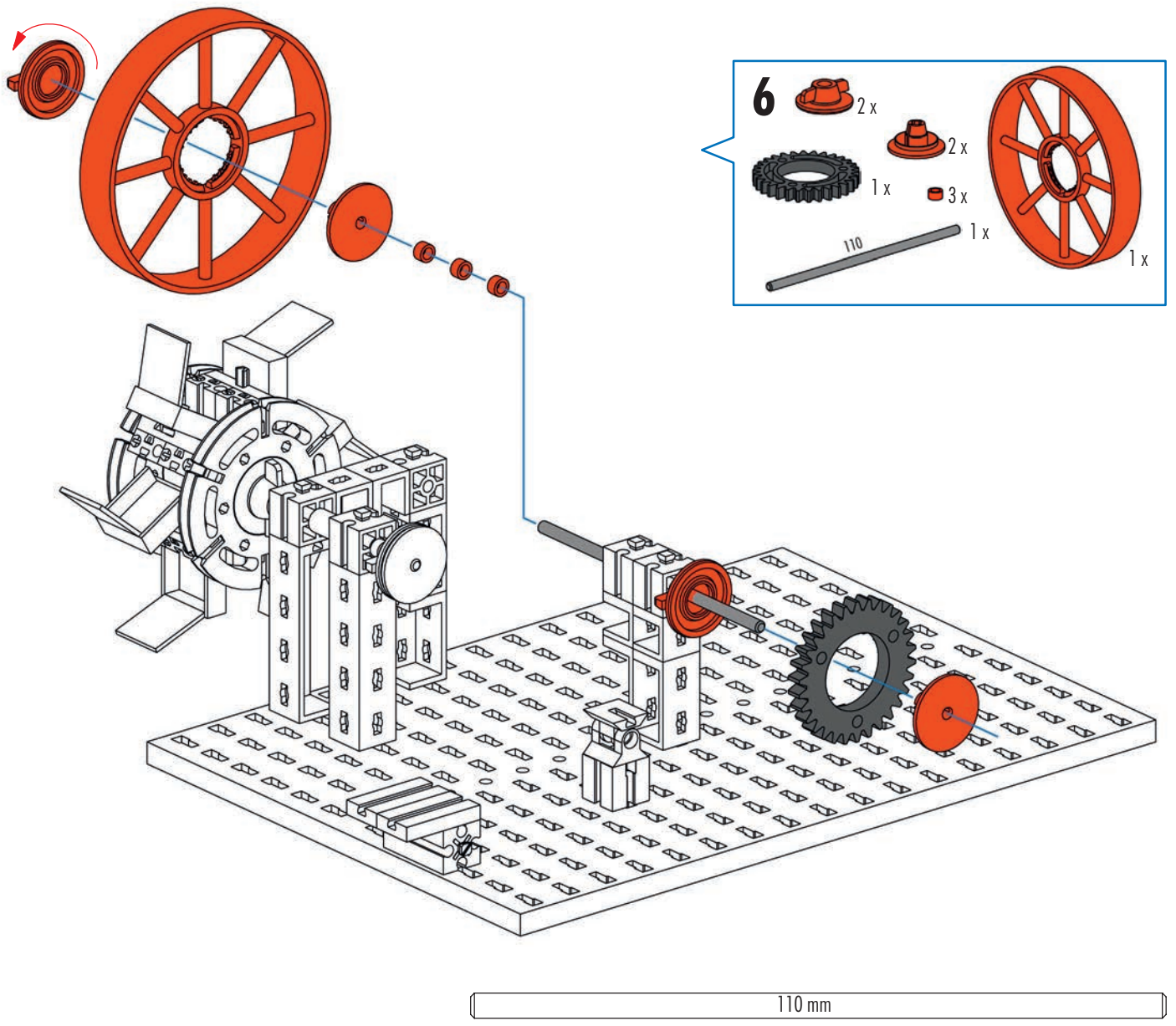
Hammerschmiede
Hammer mill
Forges à marteaux-pilons

Hamersmederij
Forja de martillo pilón
Forja de martelos

Fucina
Кузнечный молот
锤锻

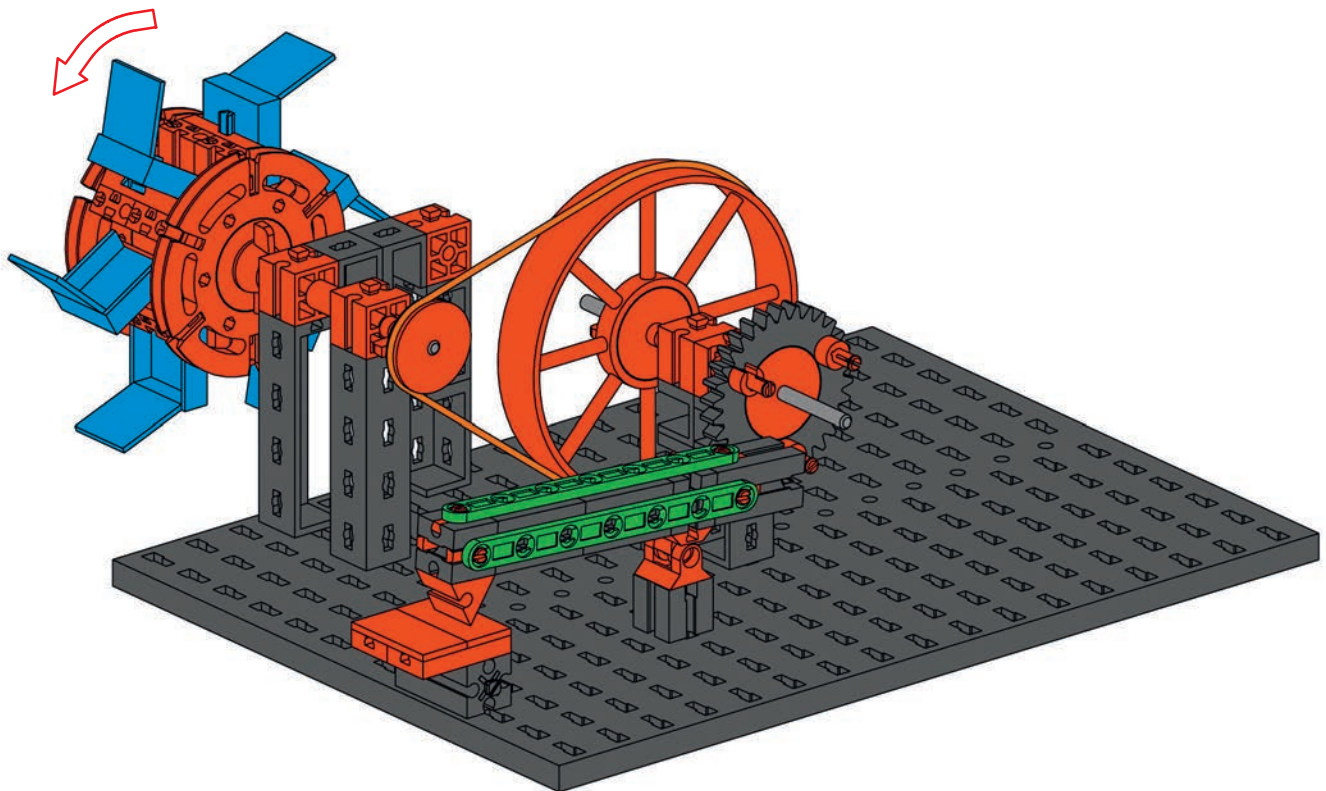
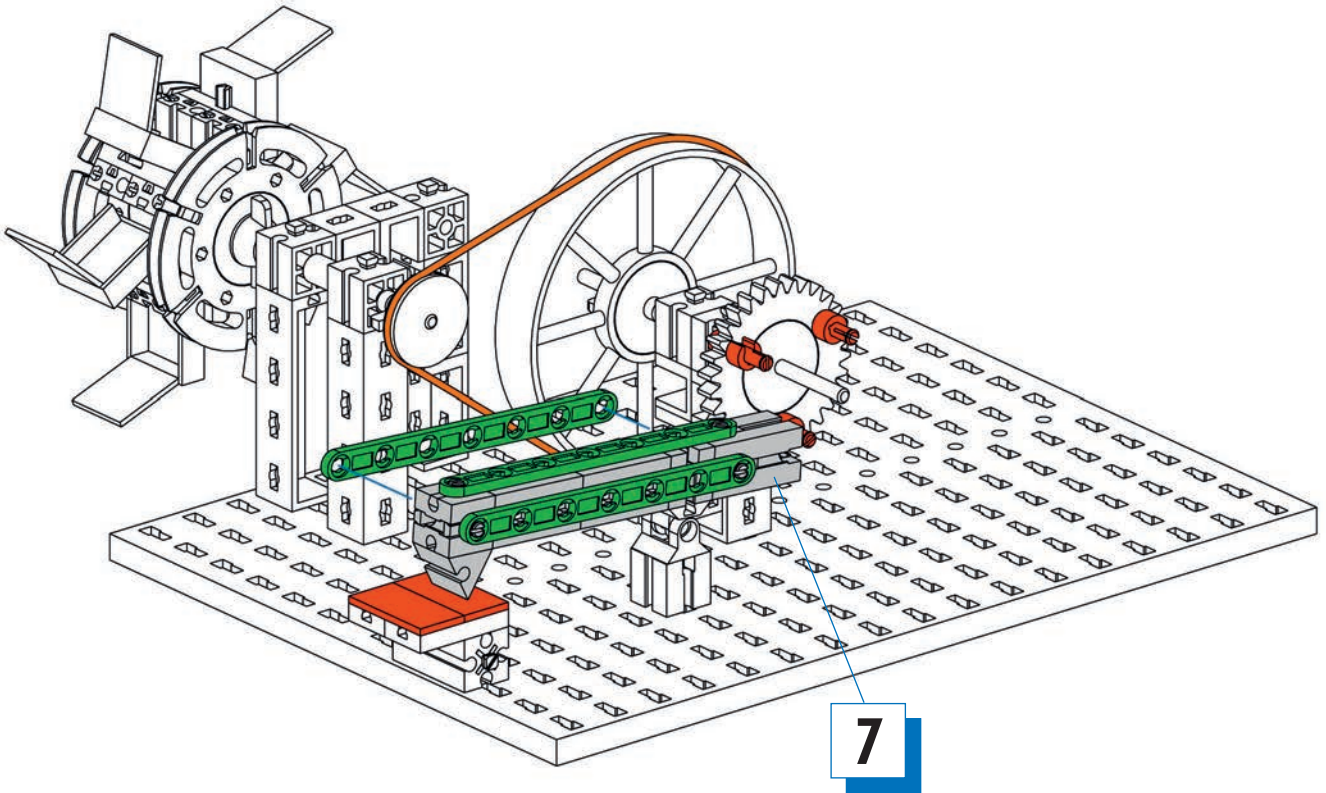


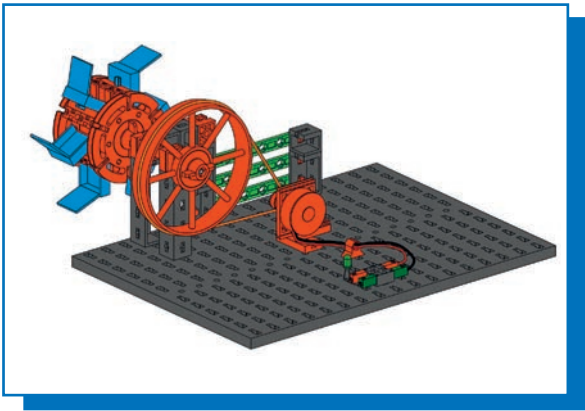




8

- 1 x
- 3 x
- 2 x
- 3 x
- 3 x

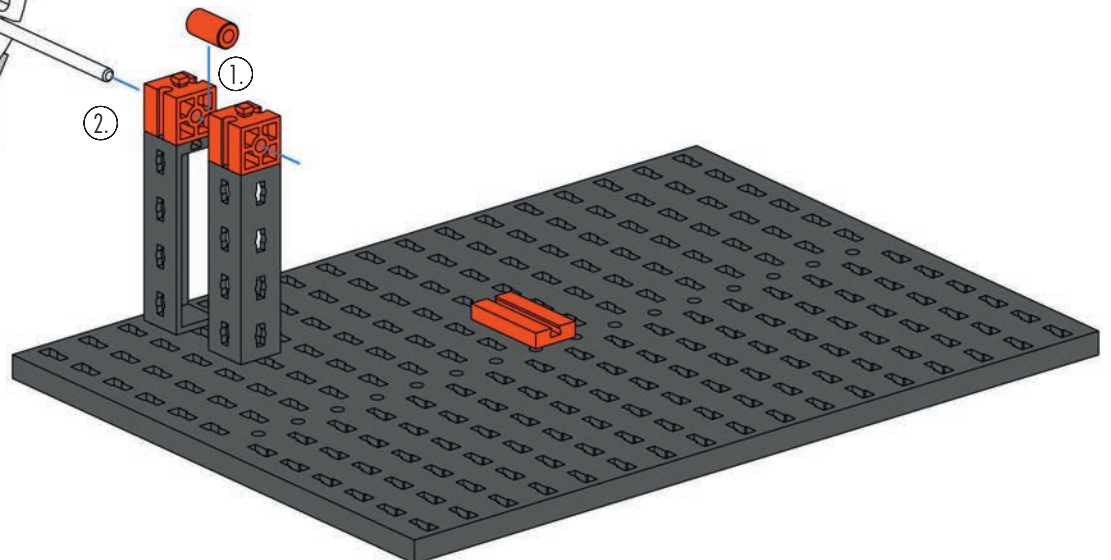
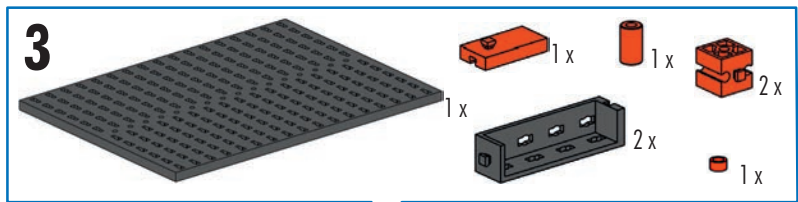
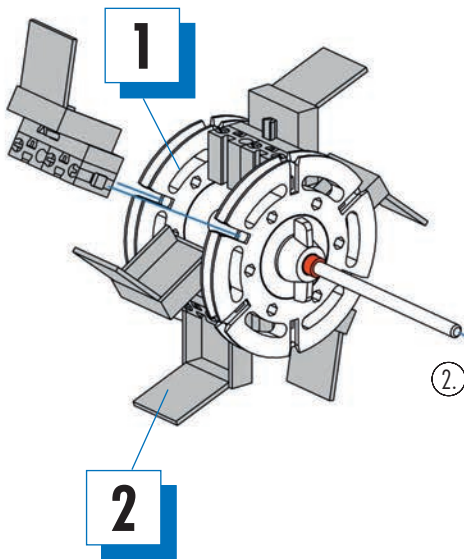
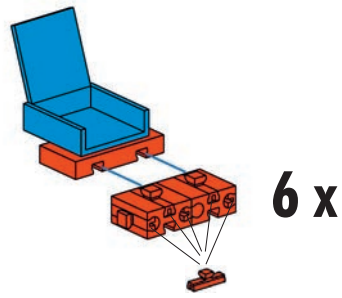
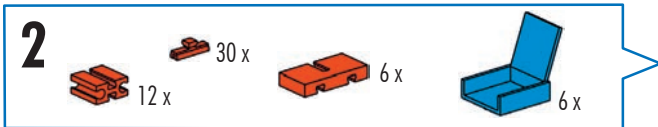
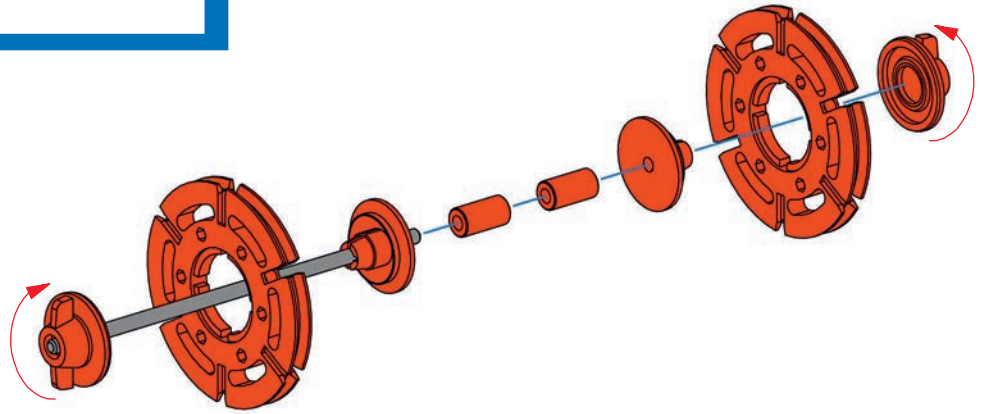
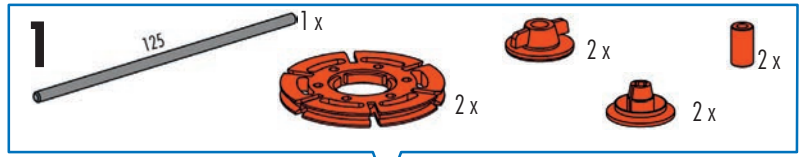


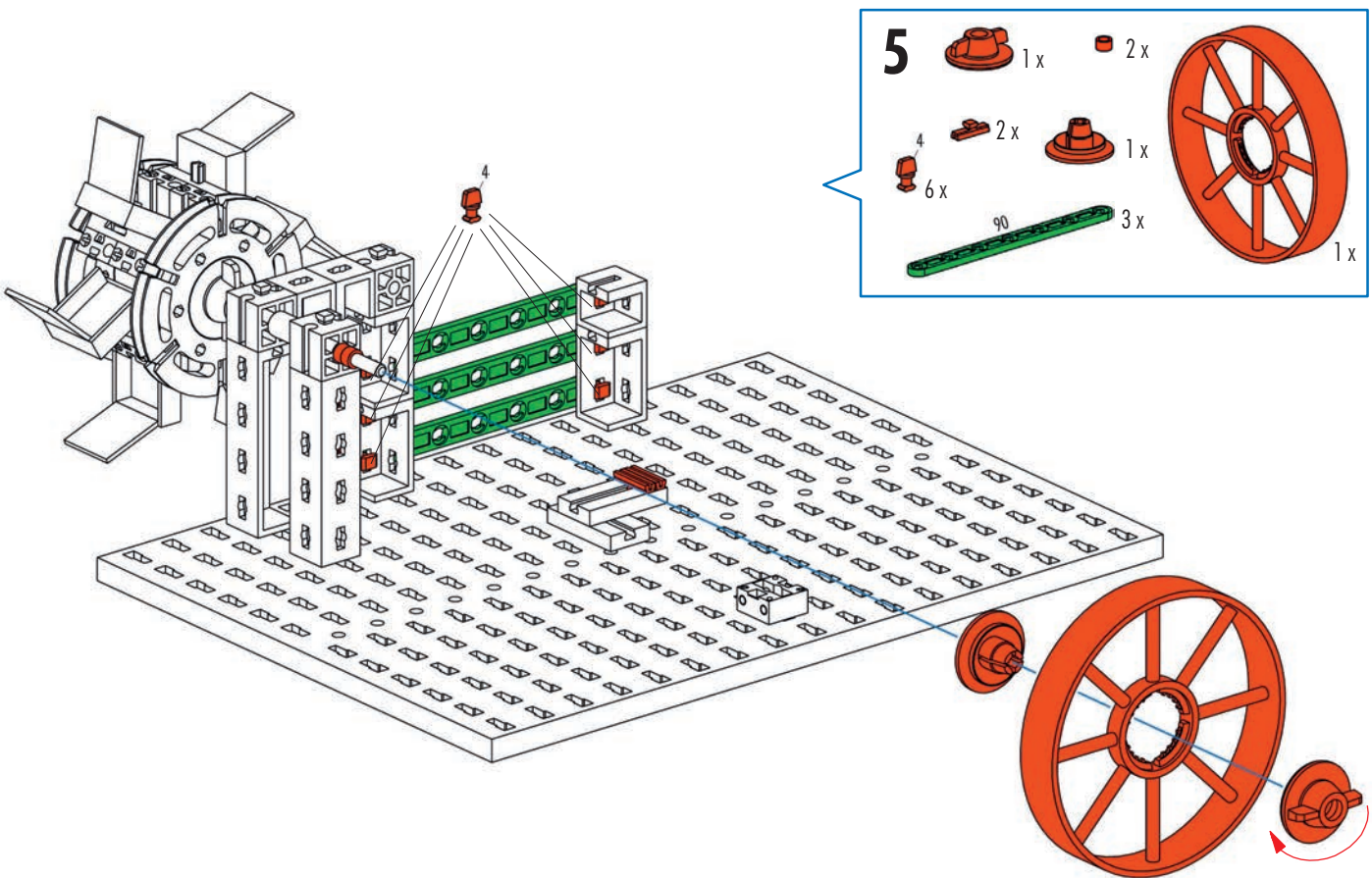
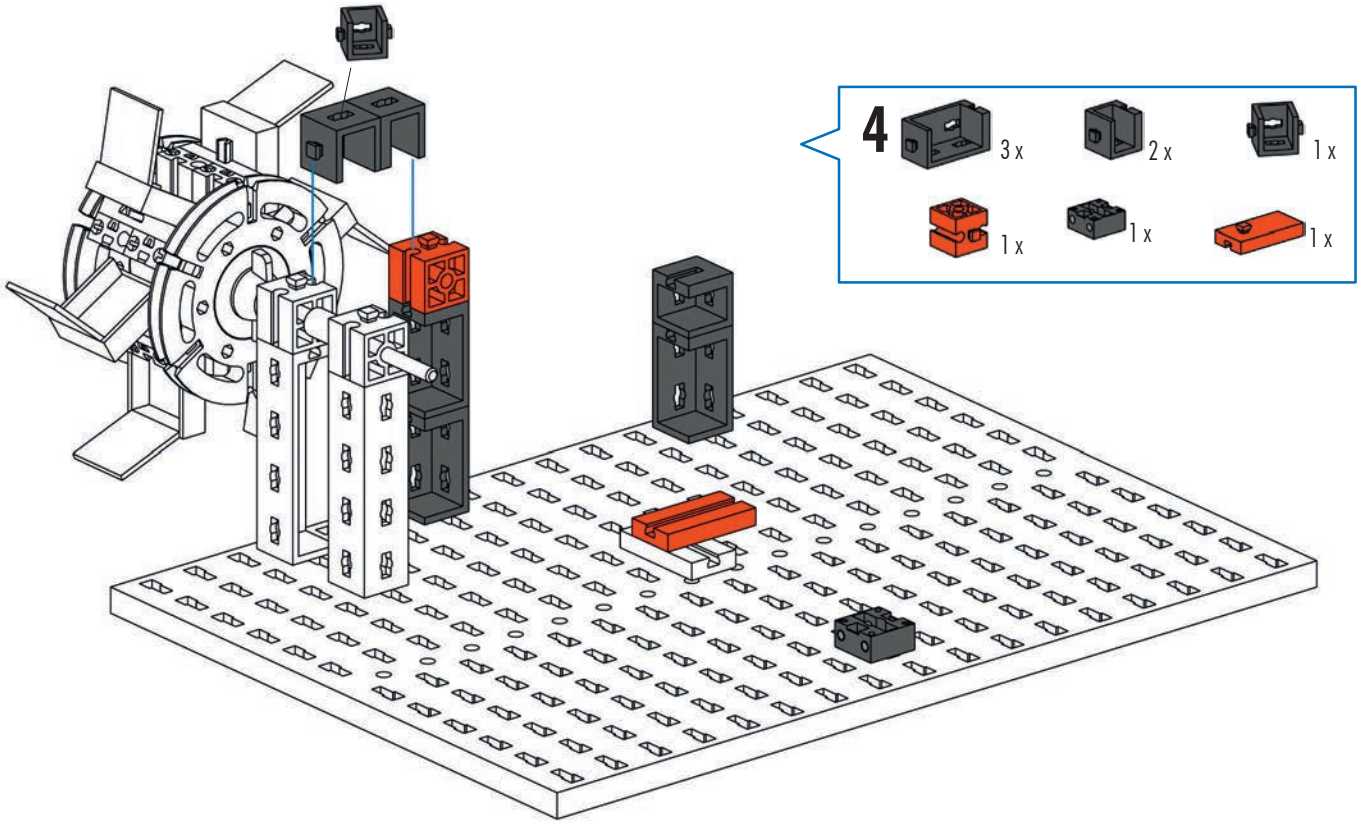


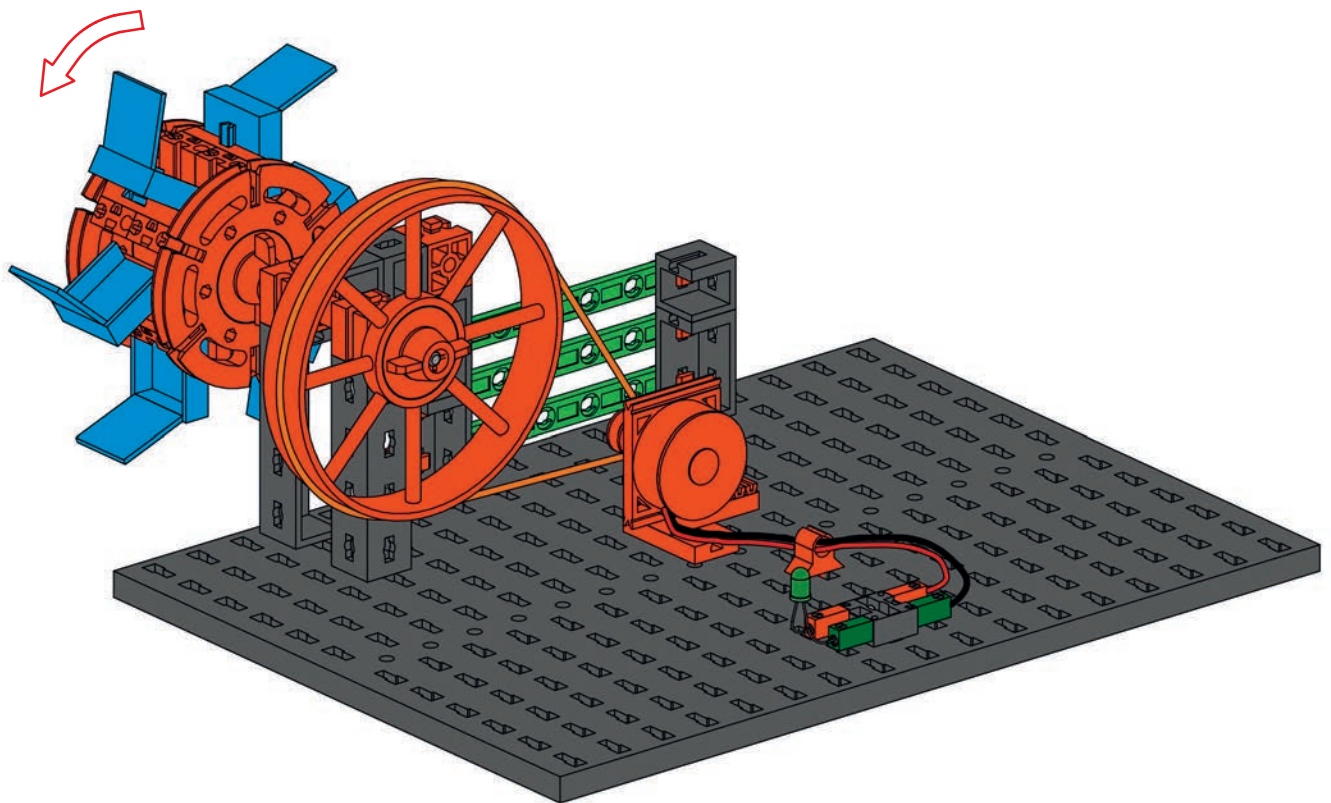
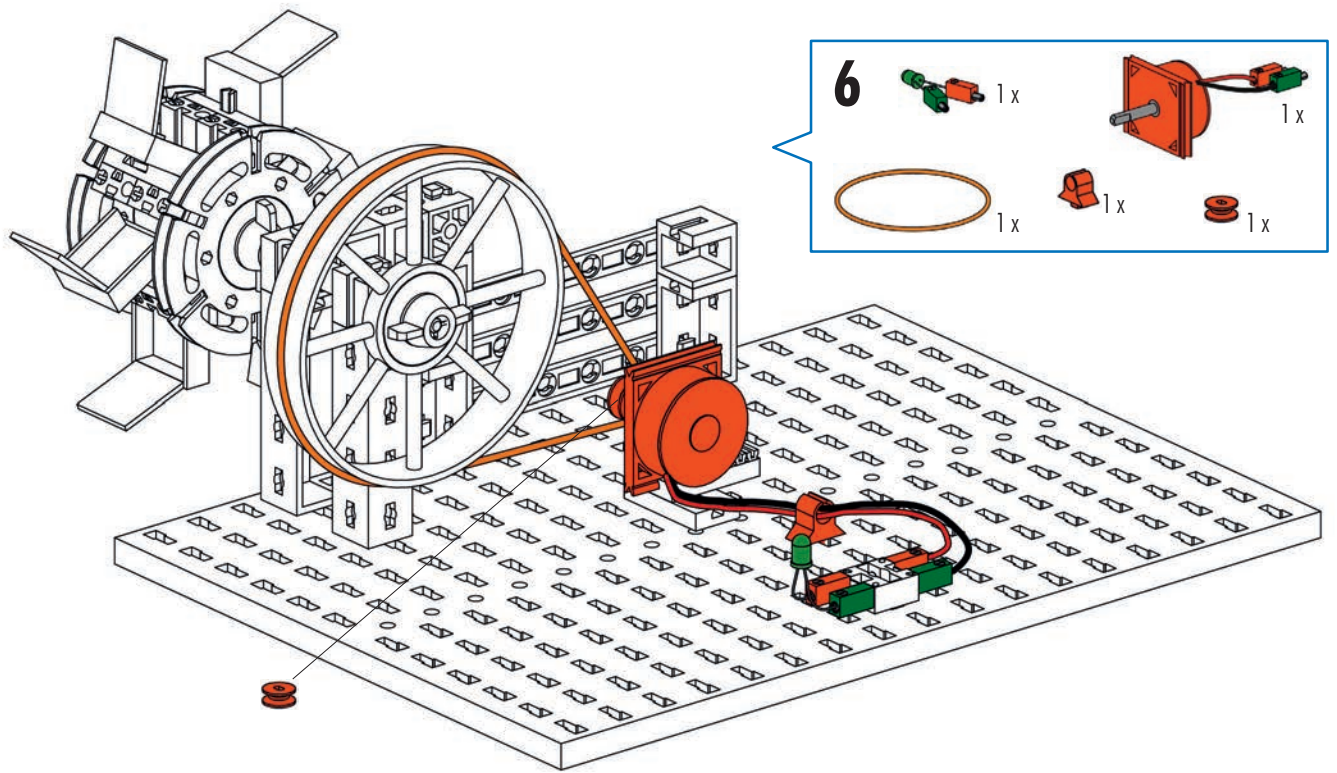
Wasserturbine
Water turbine
Turbine hydraulique

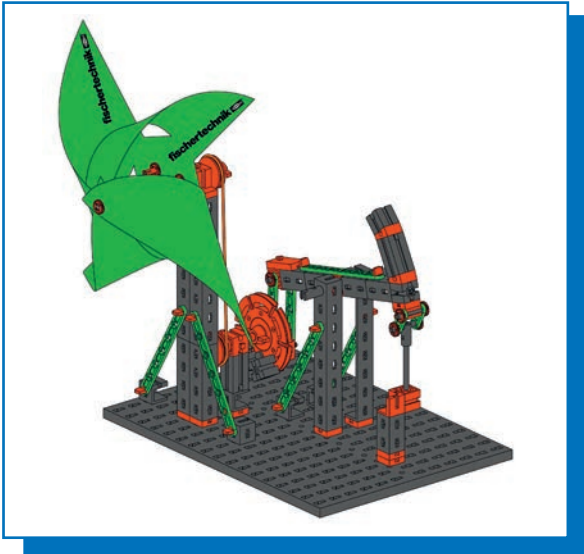
Waterturbine
Turbina de agua
Turbina hidráulica

Turbina idraulica
Гидротурбина
水轮机





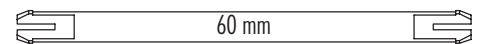
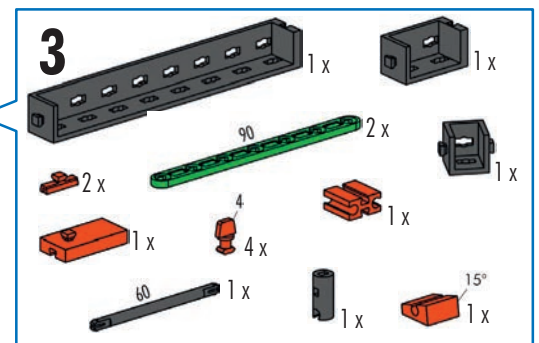
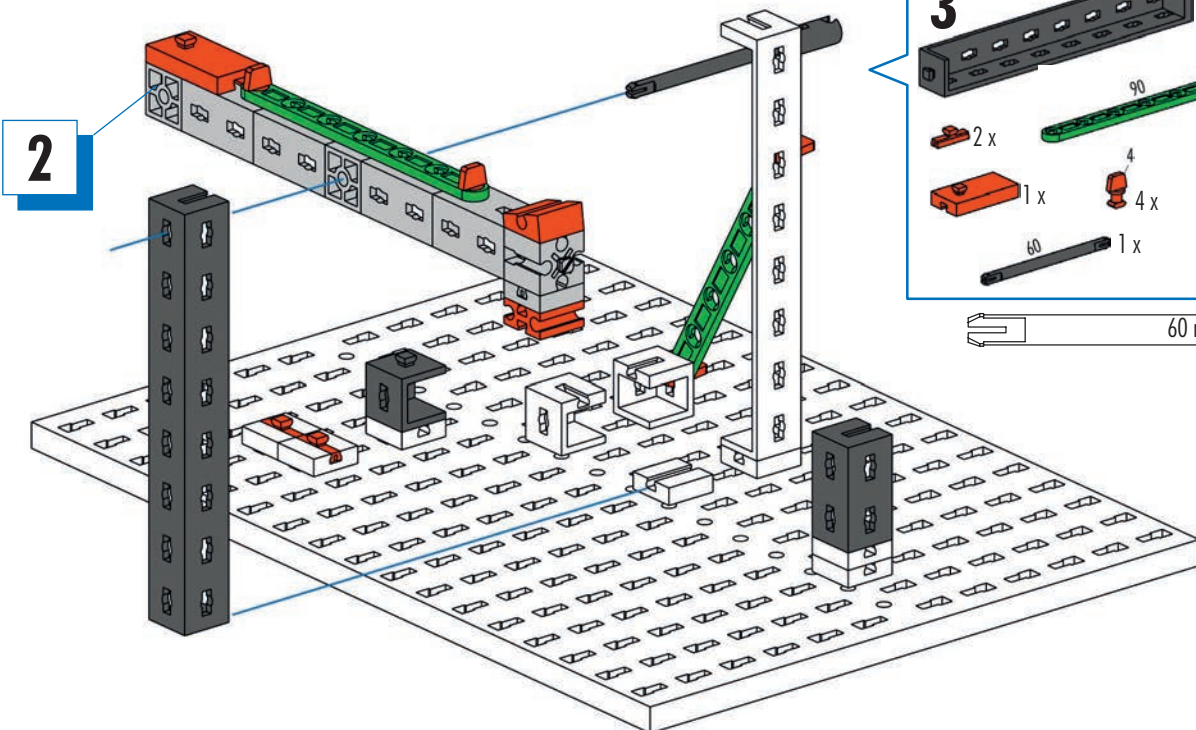
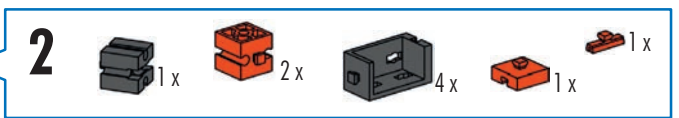
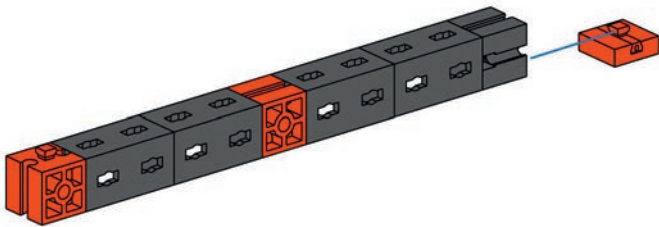
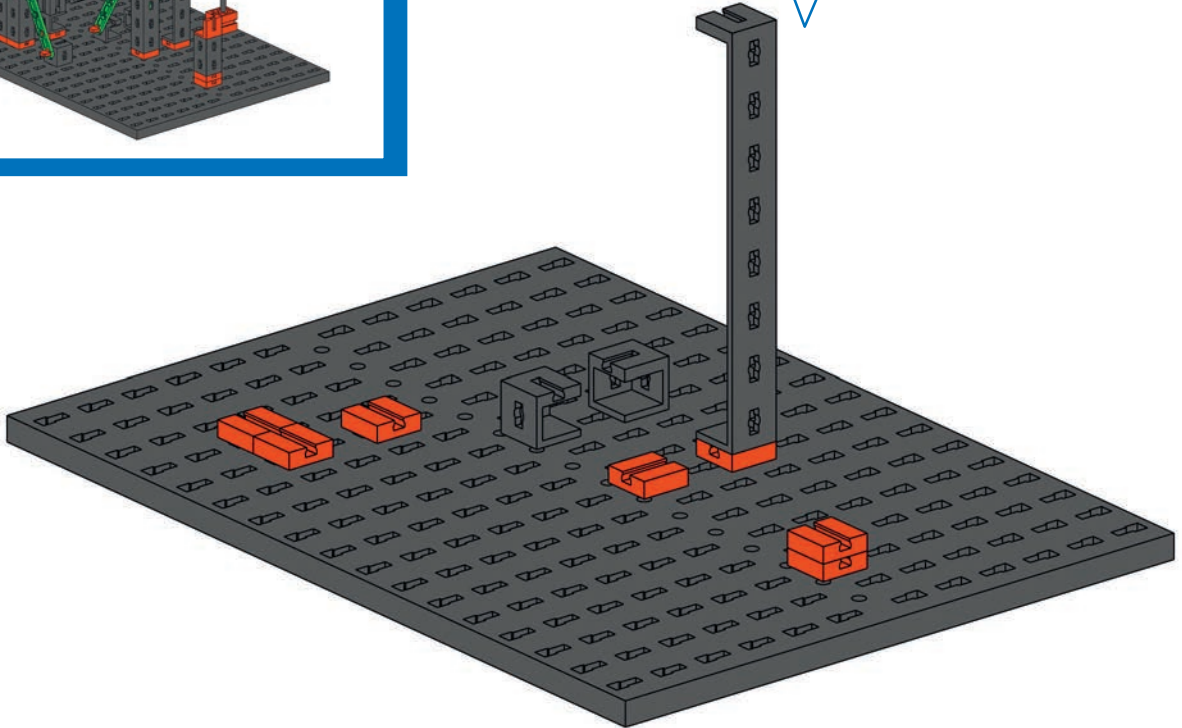
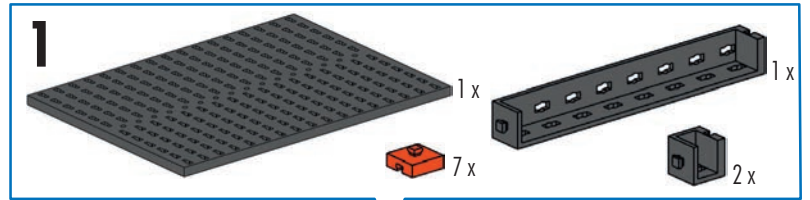


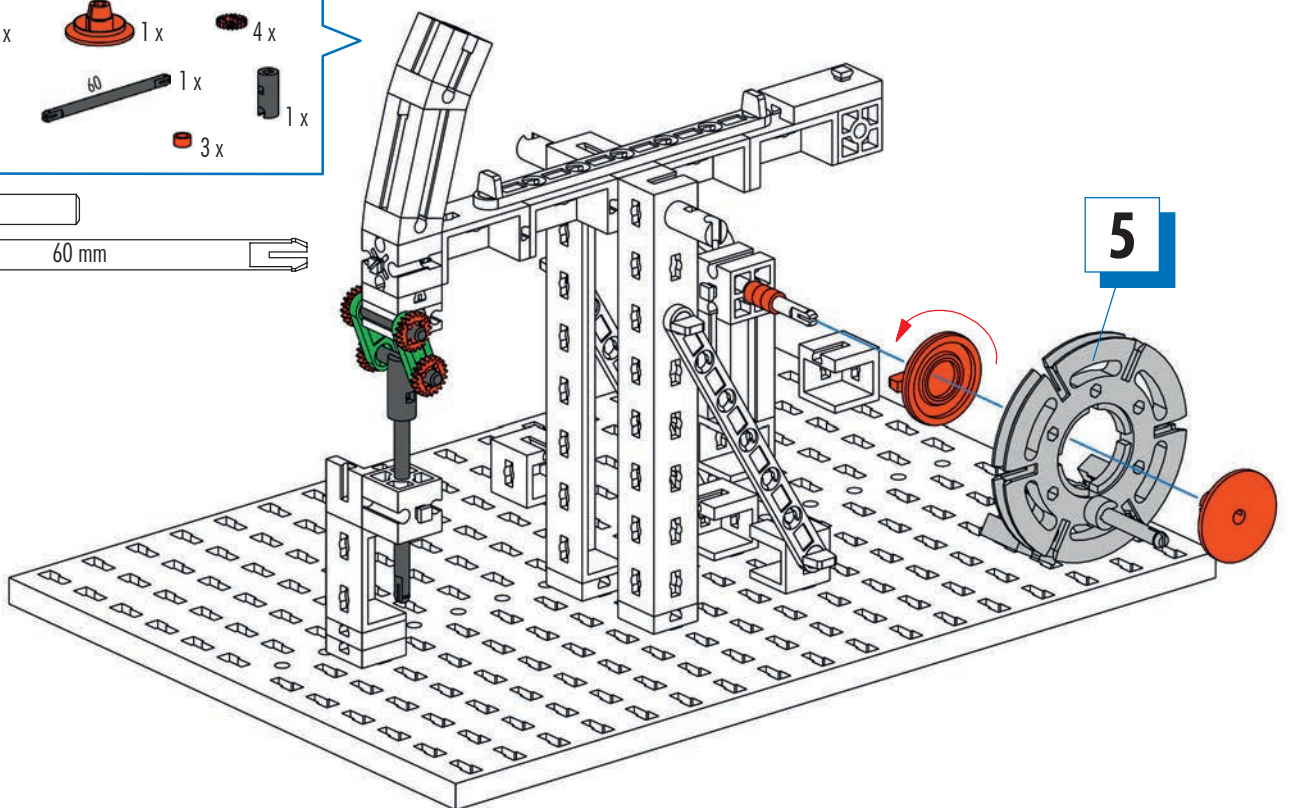
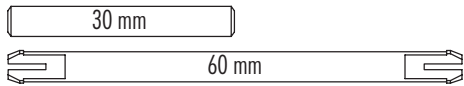
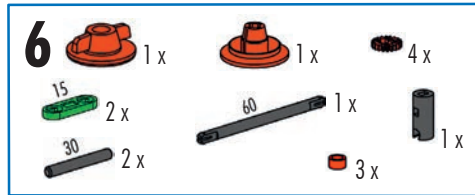
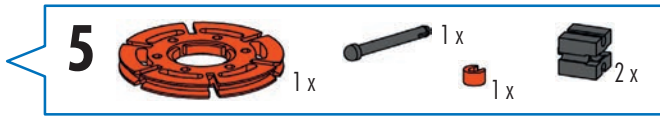
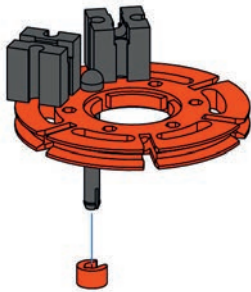
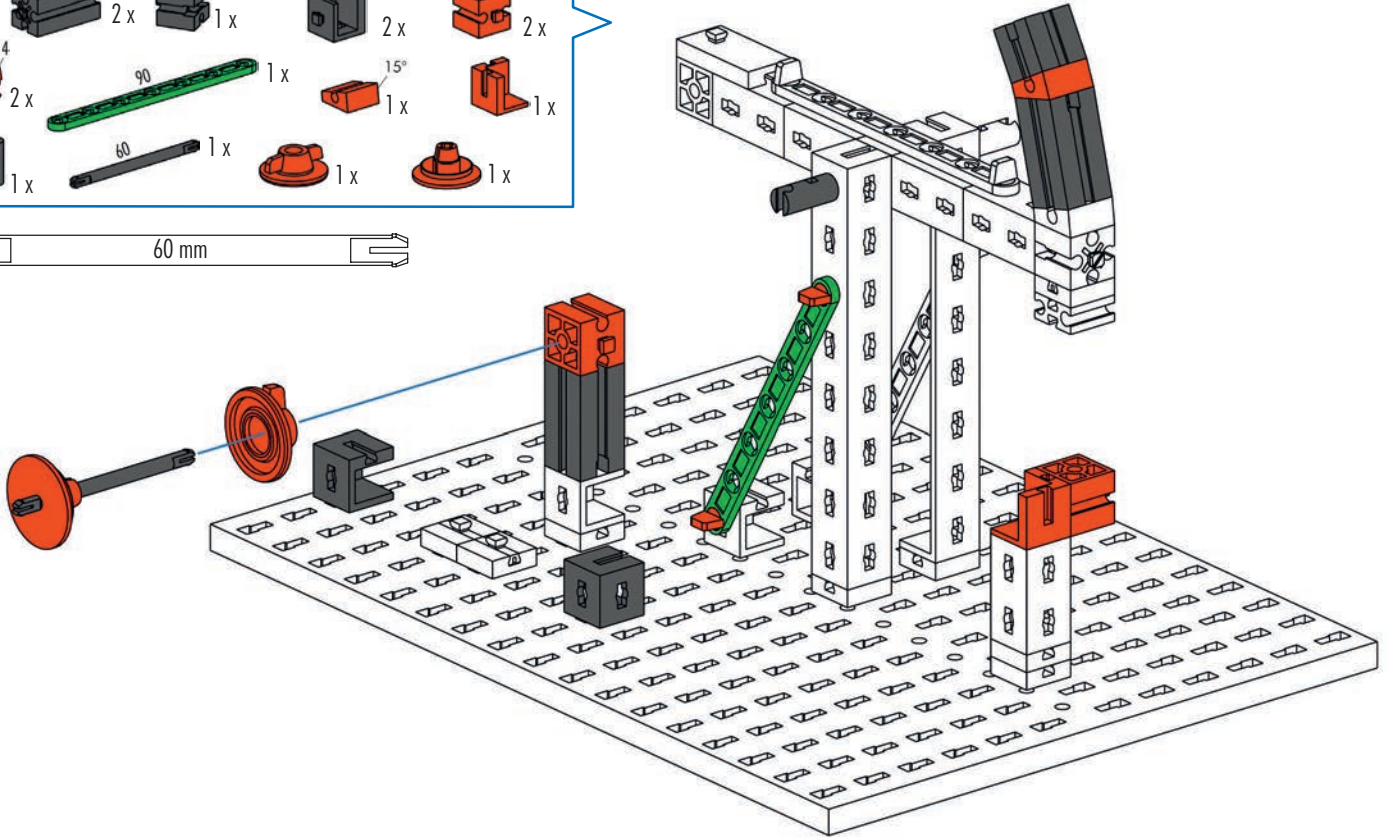
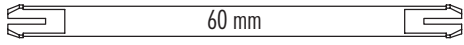
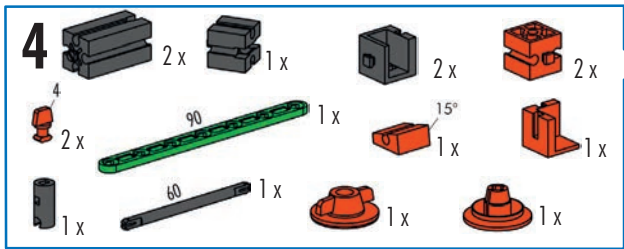


Windrad mit Pumpe
Windmill with pump
Roue éolienne avec
pompe

Wieken met pomp
Rueda de viento con bomba
Turbina eólica com bomba

Pala eolica con pompa
Ветряное колесо с
насосом
风车和泵

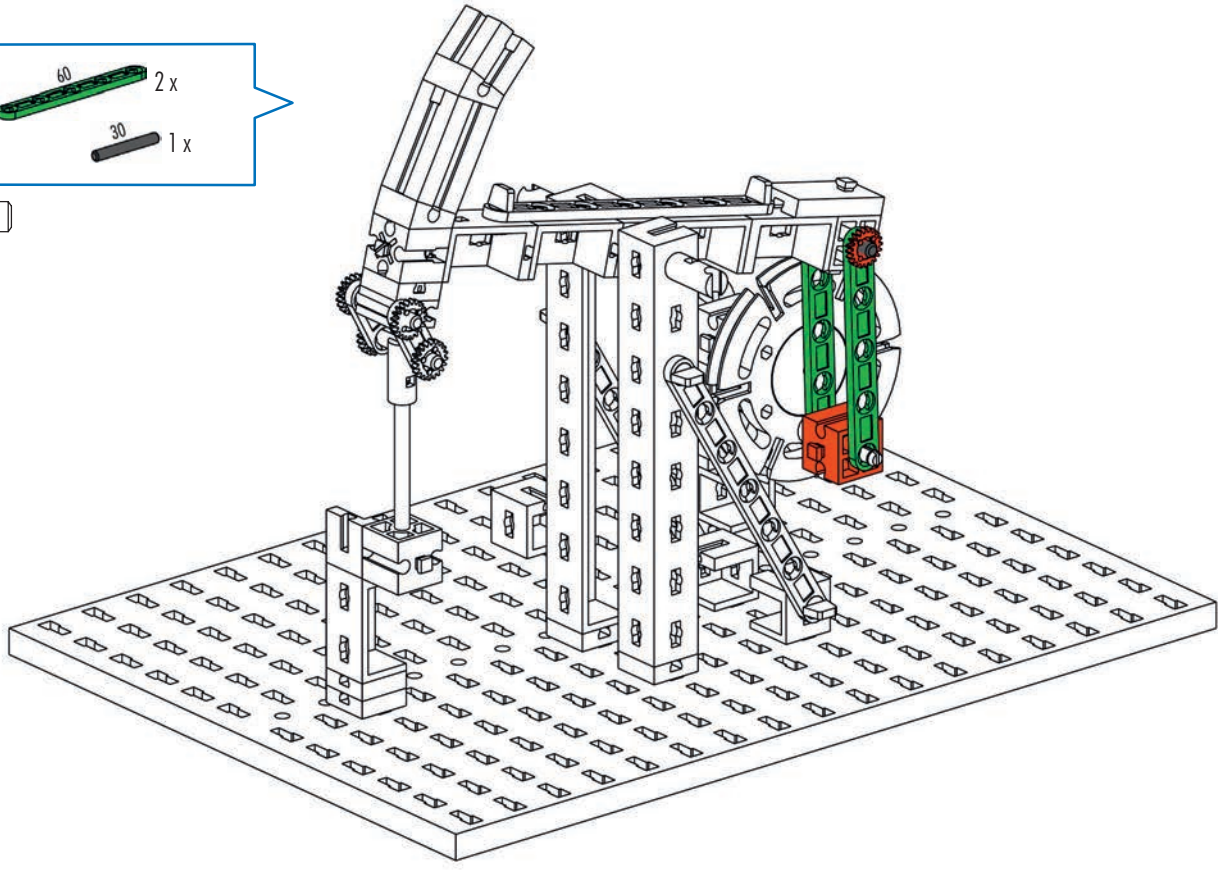




7

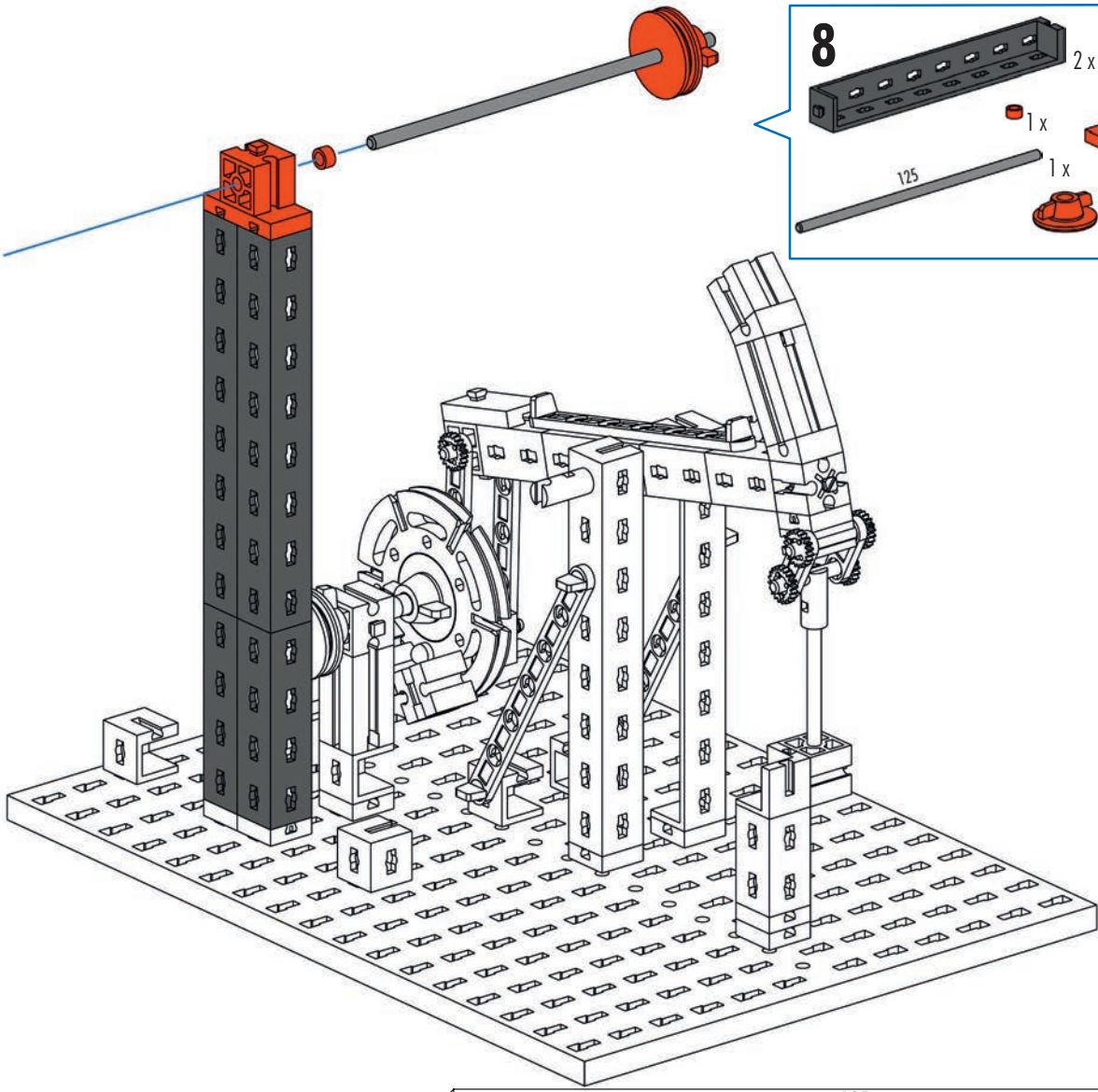
- 1 x Orange 1x3 Technic Brick with Hole
- 2 x Green 60 Technic Beam
- 2 x Black Pin
- 1 x Grey 30 Technic Pin

30 mm



8

- 2 x Grey 125 Technic Beam
- 2 x Grey 4x2 Technic Beam
- 1 x Red Pin
- 1 x Orange 1x3 Technic Brick with Hole
- 1 x Orange 1x3 Technic Brick with Hole
- 1 x Grey 125 Technic Pin
- 1 x Red Axle Connector
- 1 x Red Axle Connector



125 mm

9



2x



1x



1x



1x



3x

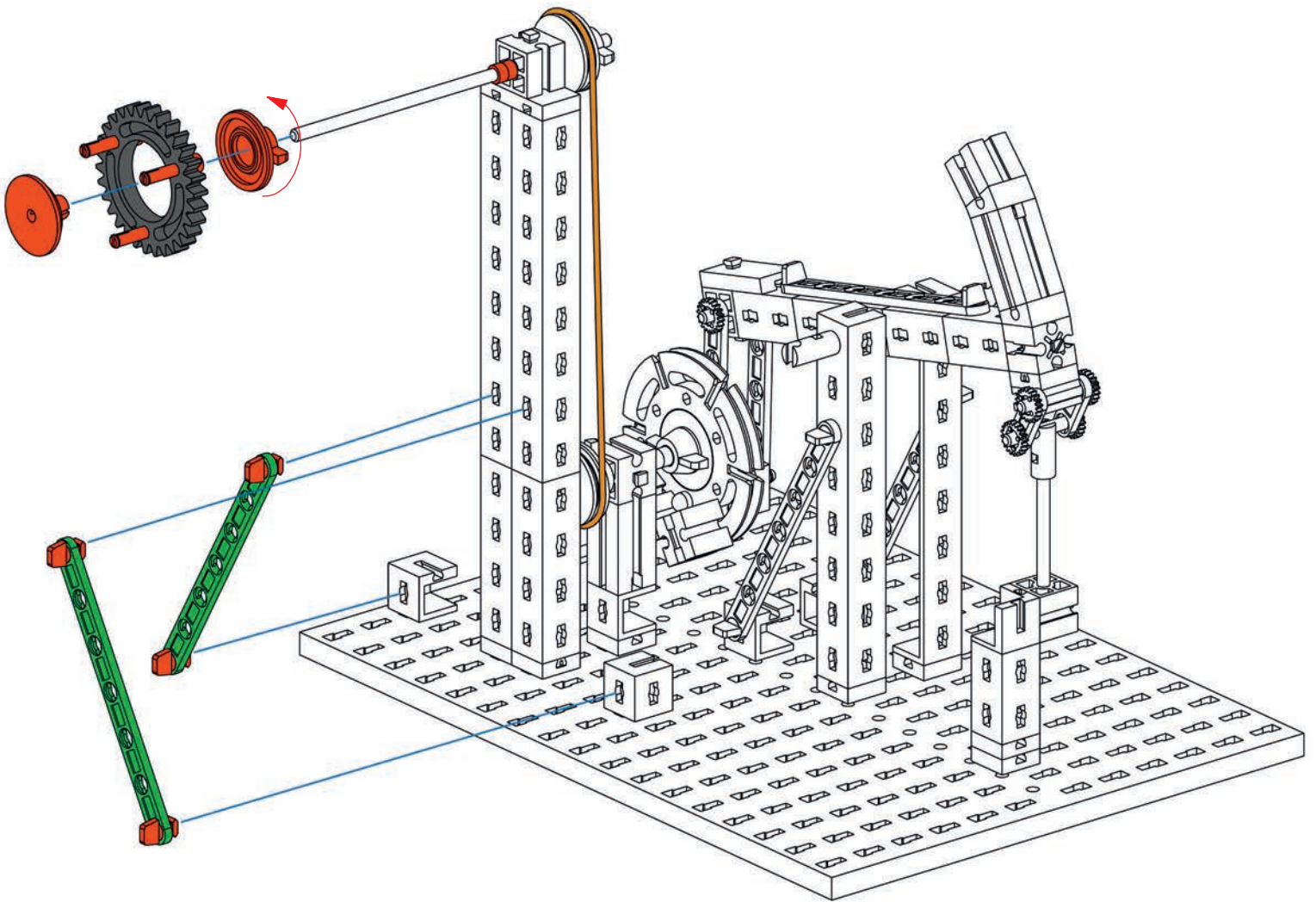


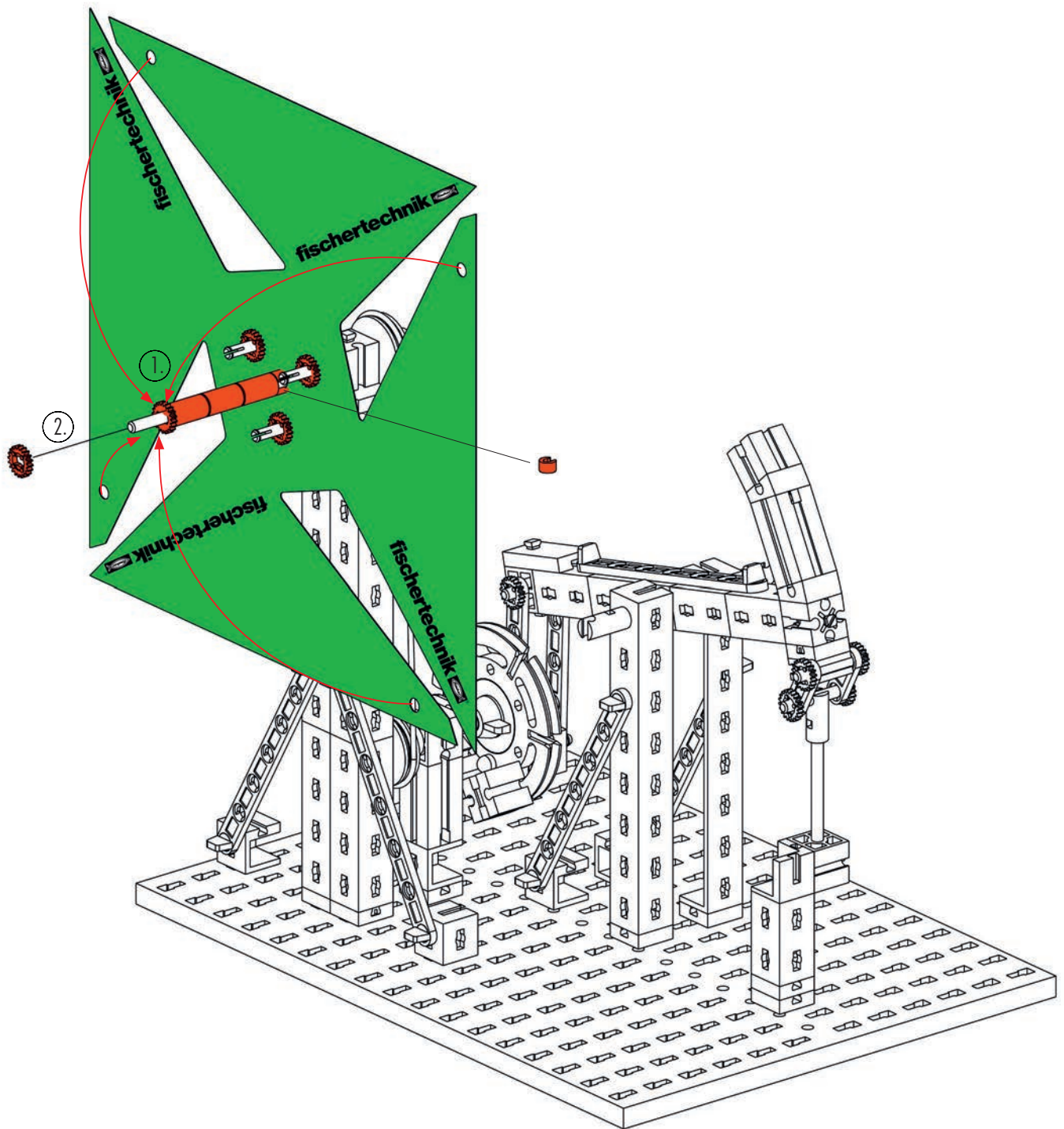
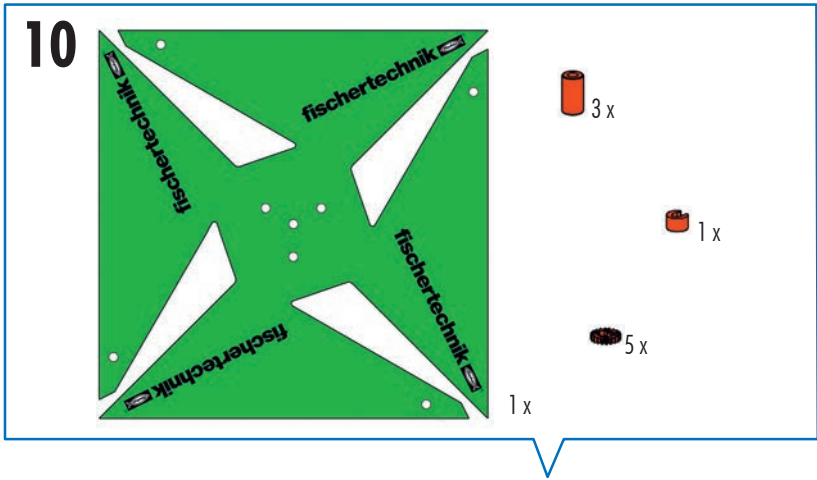
90

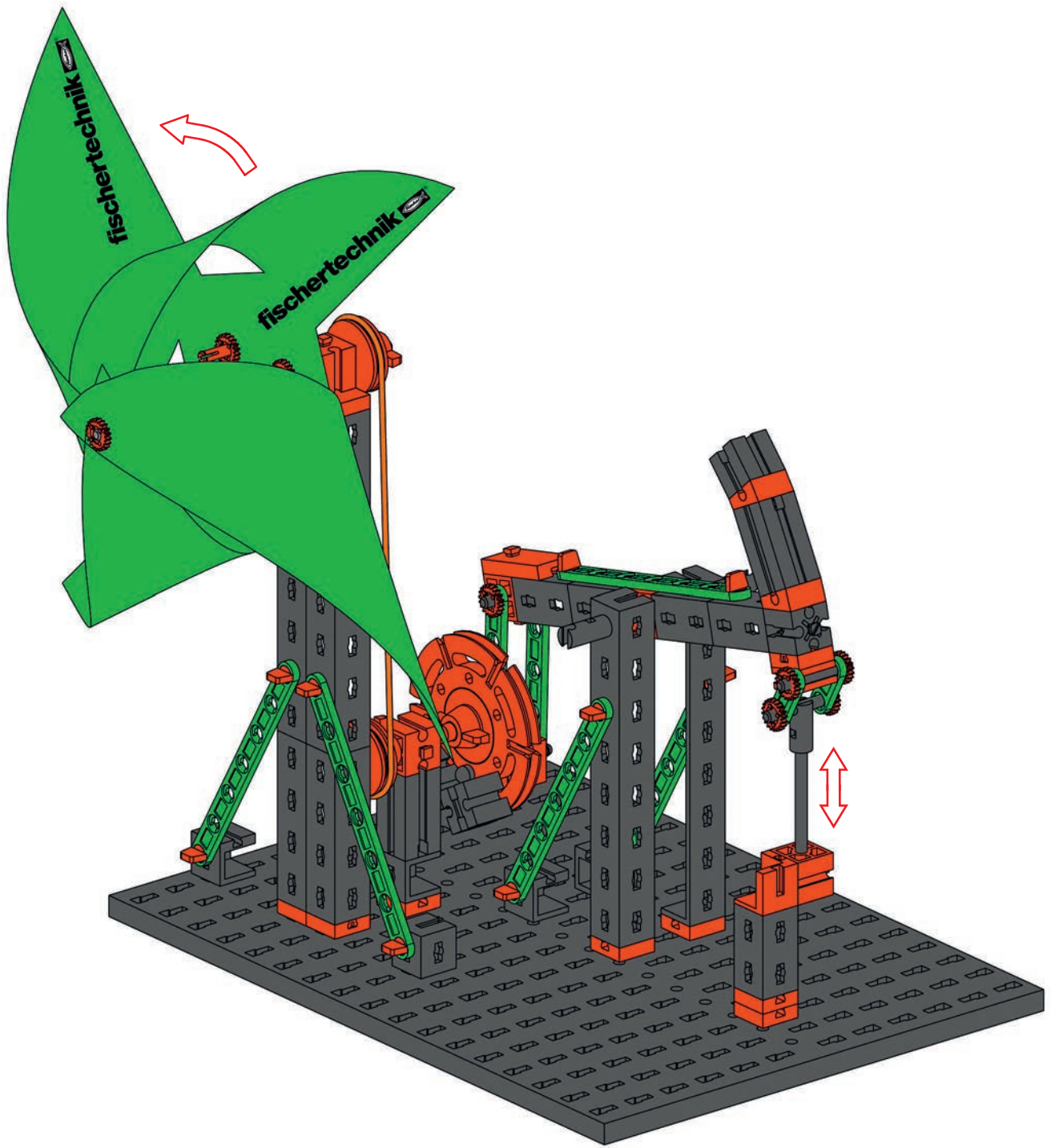
2x

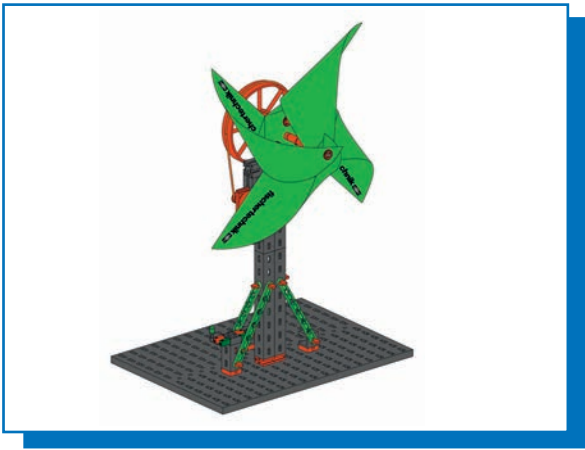


4x





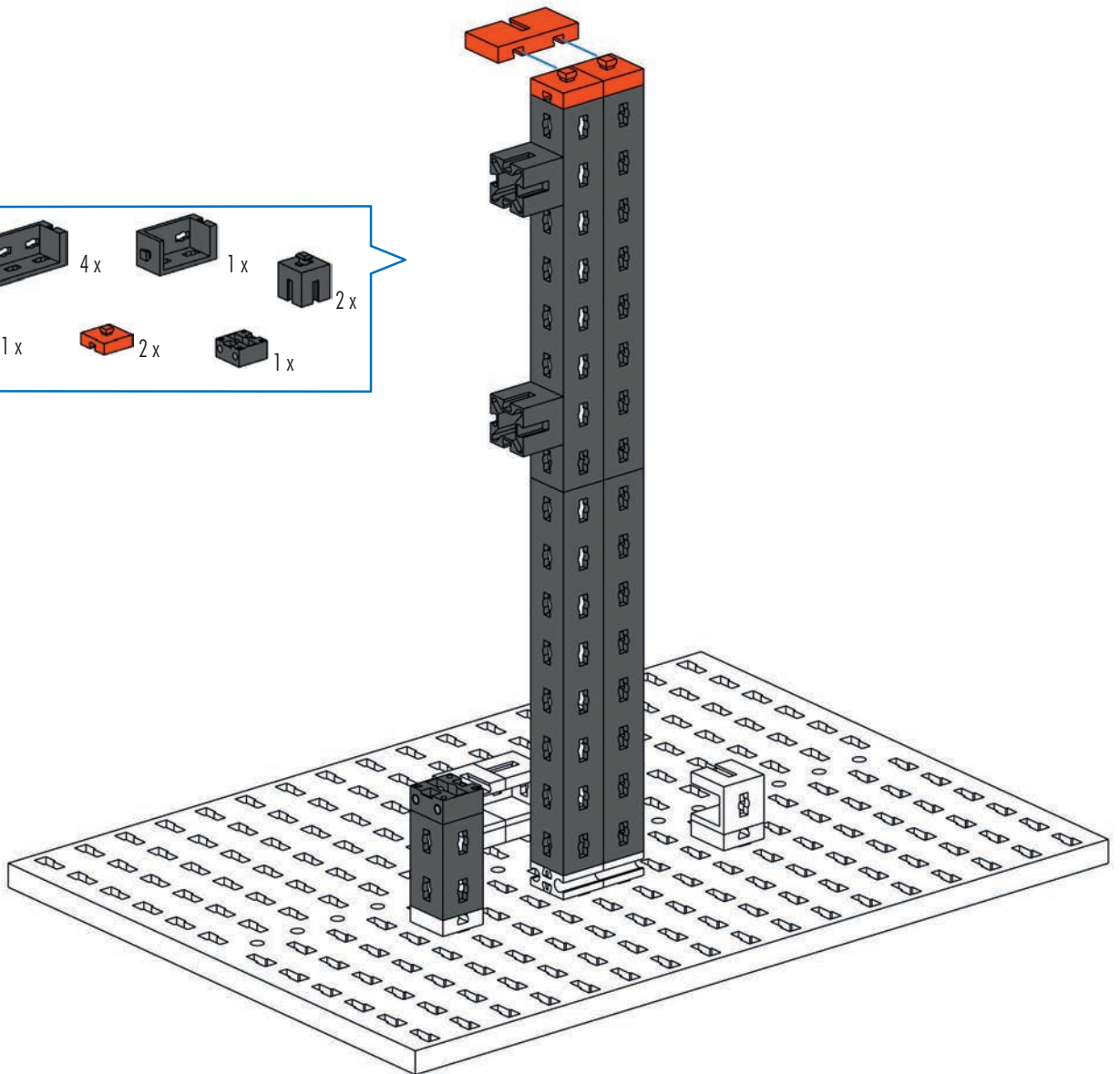
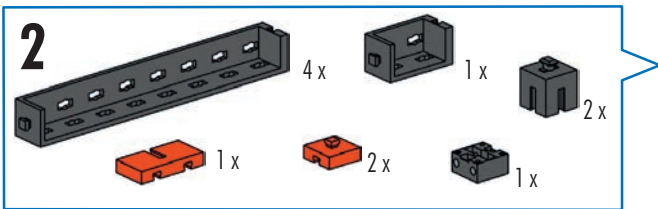
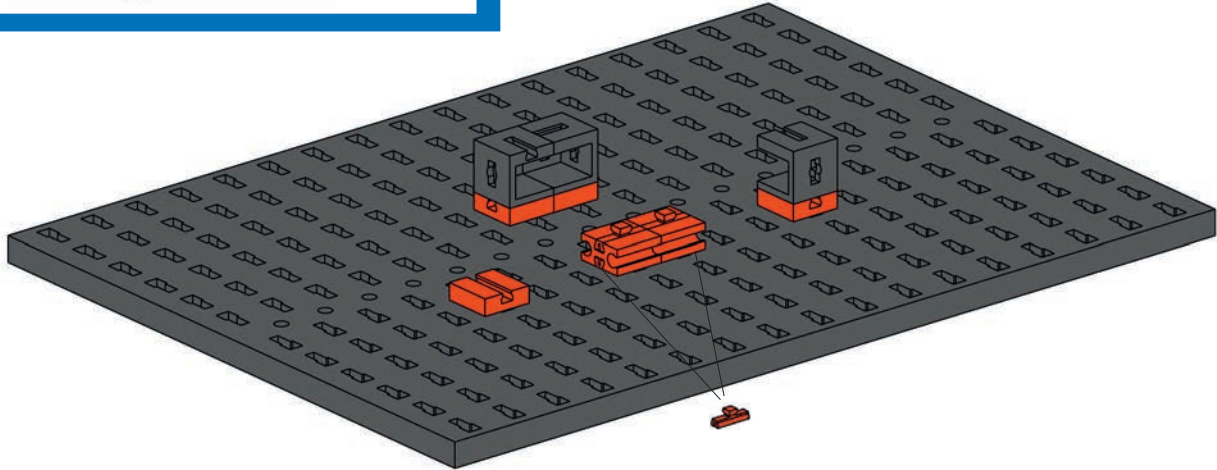
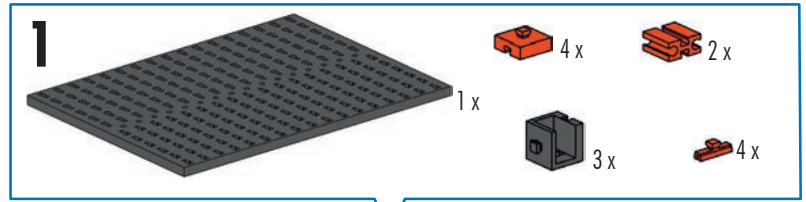


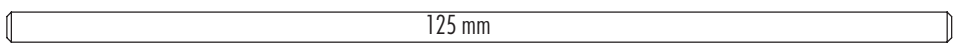
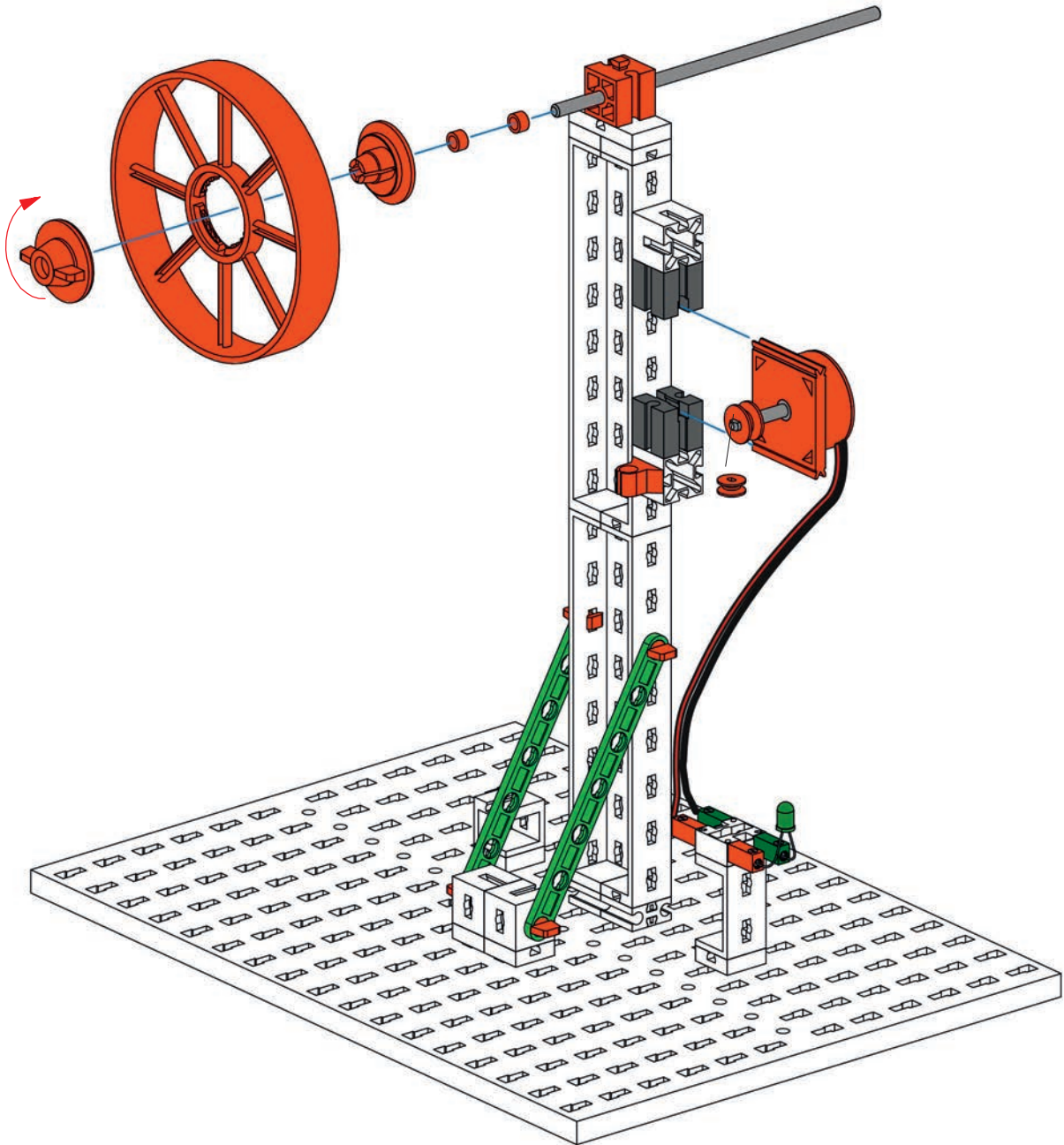
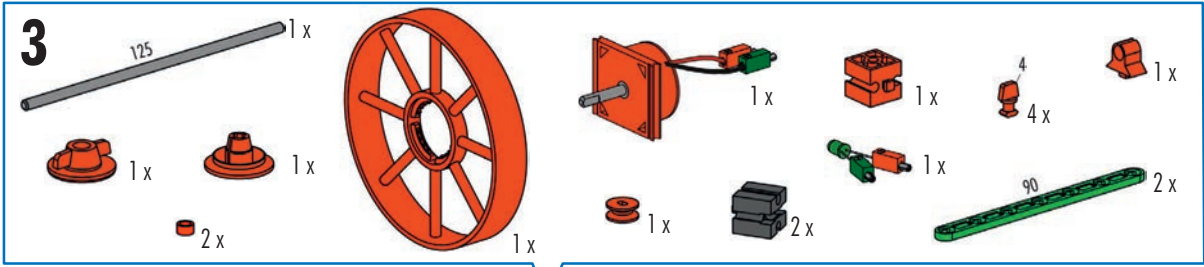


Windkraftanlage
Windpower Station
Éolienne

Windkrachtinstallatie
Instalación eólica
Estación eólica

Impianto eolico
Ветросиловая установка
风力发电机





4



2x



1x

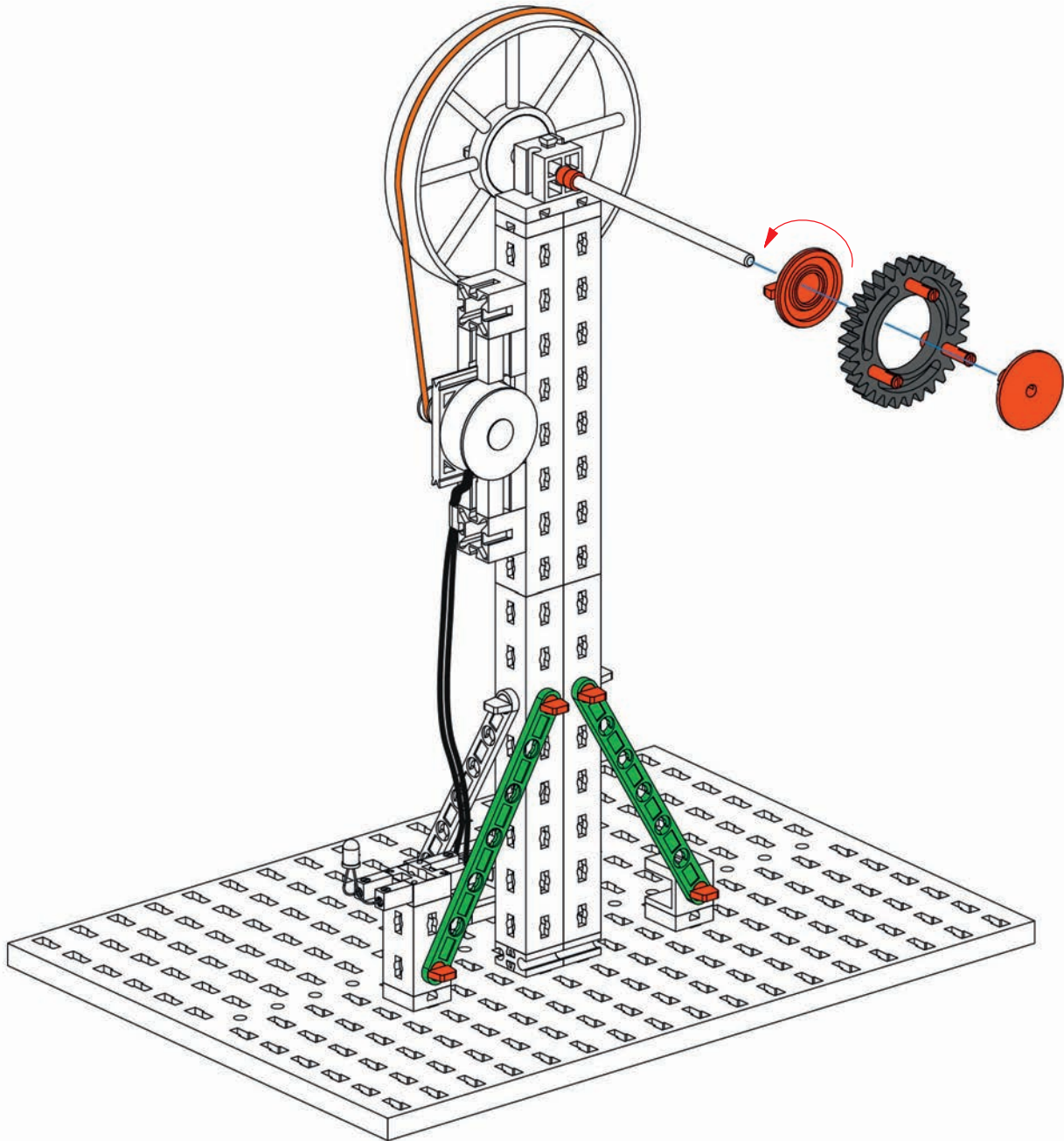


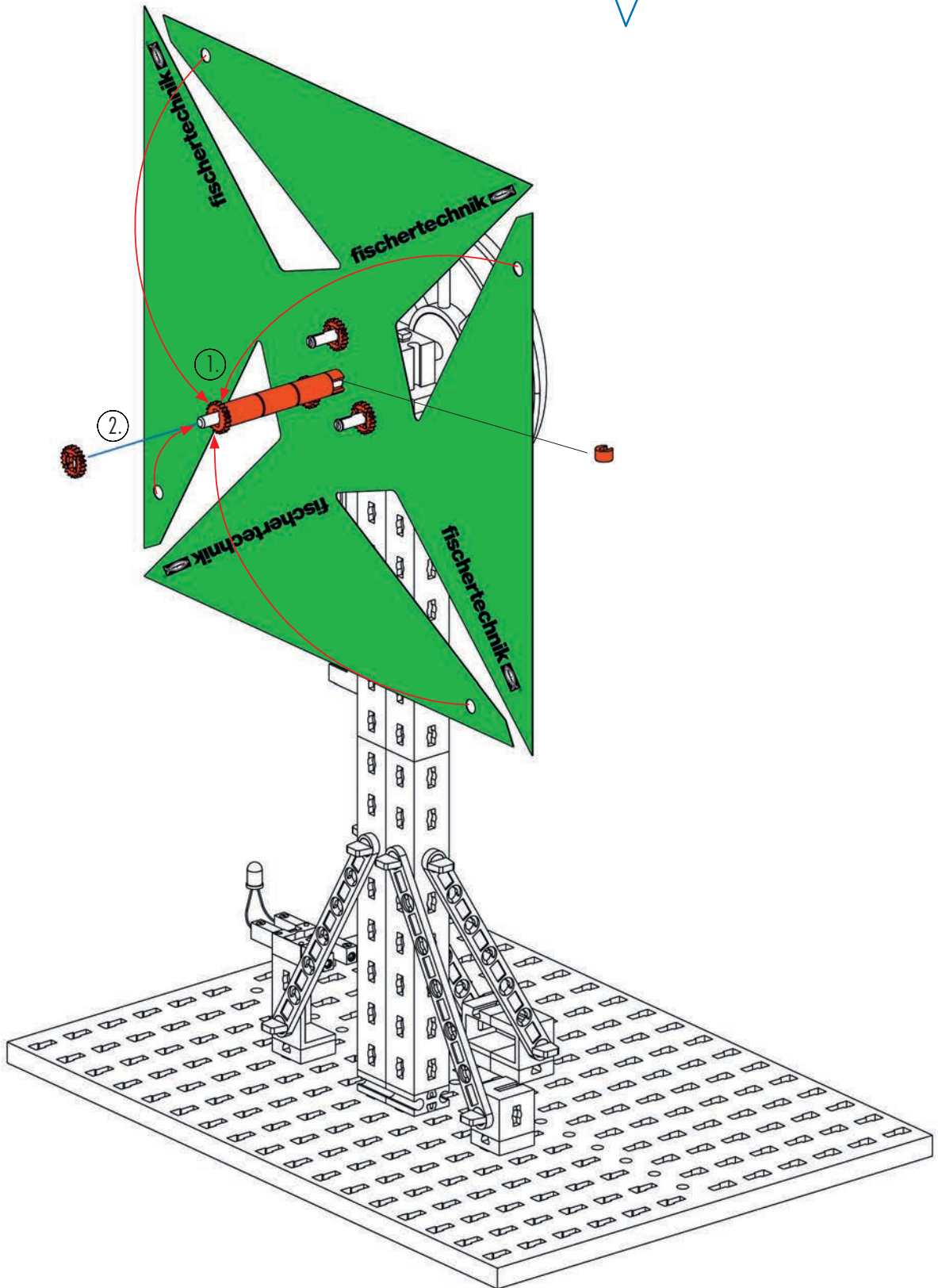
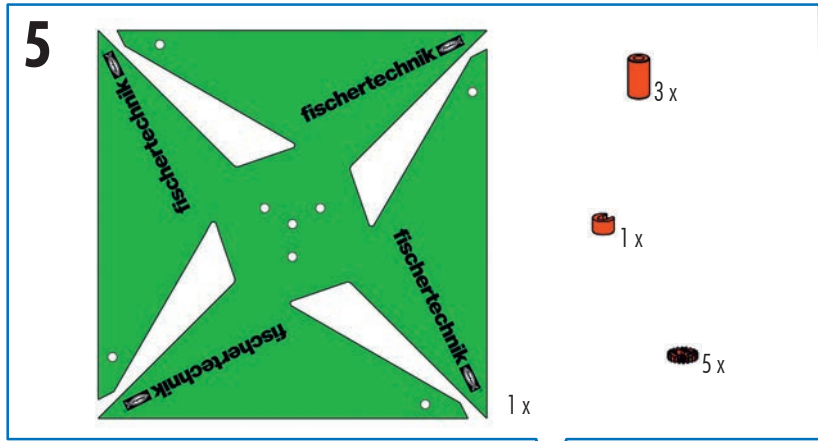
1x

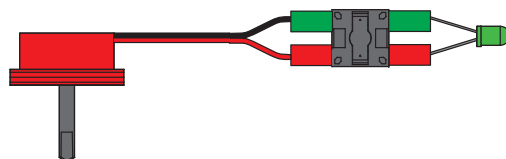
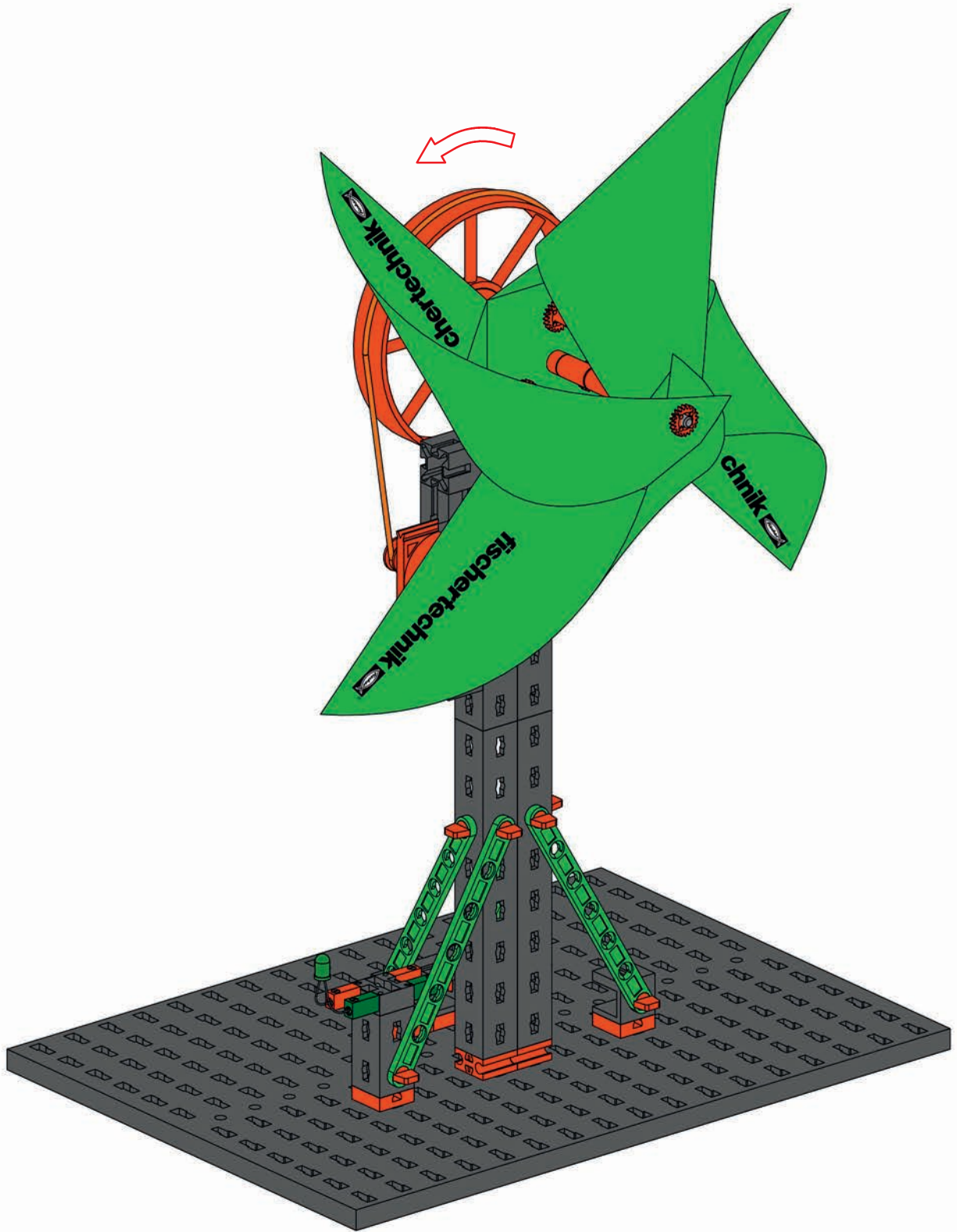
3x



4x



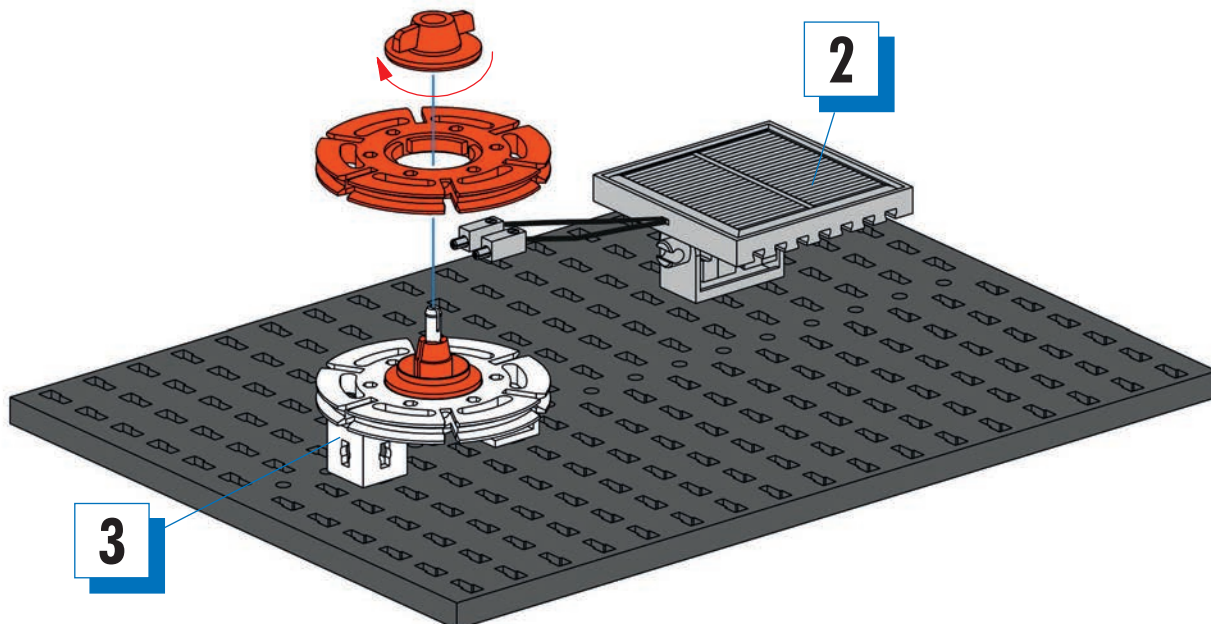
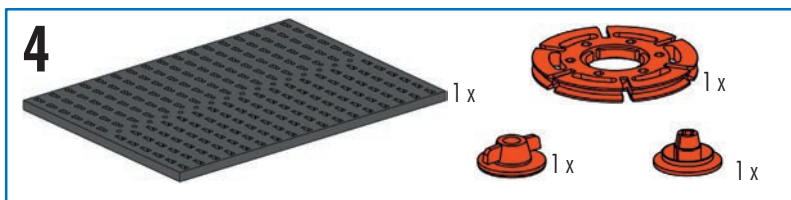
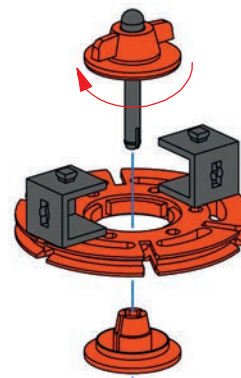
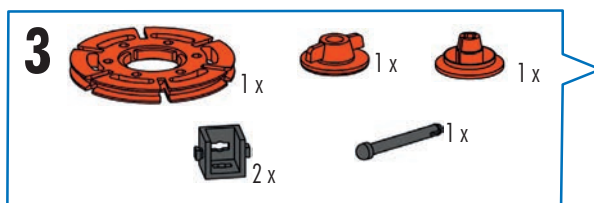
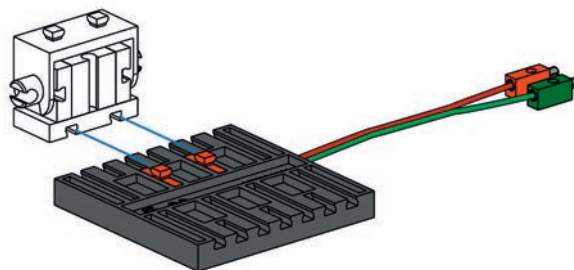
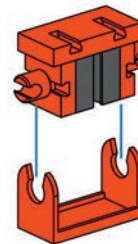
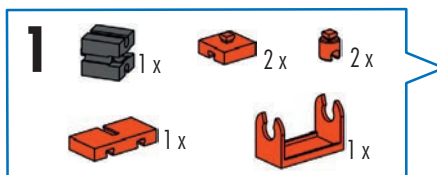
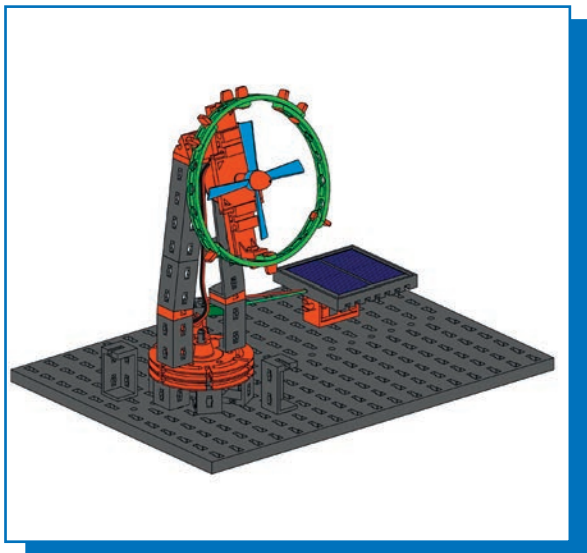


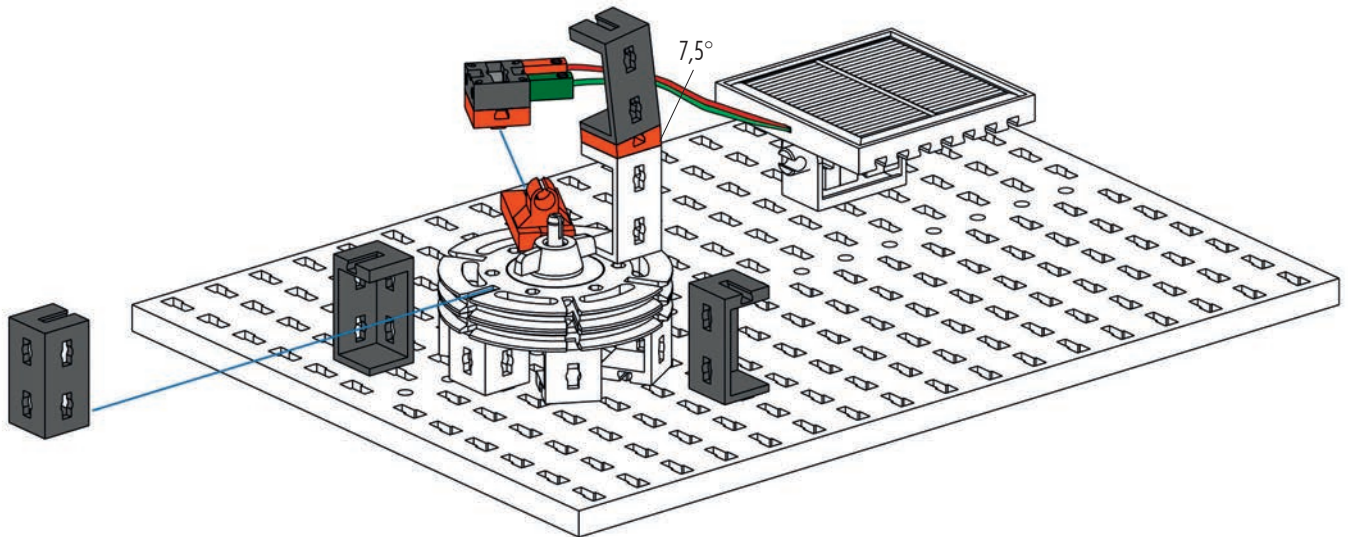
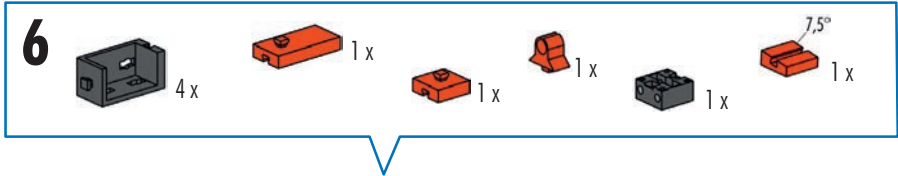
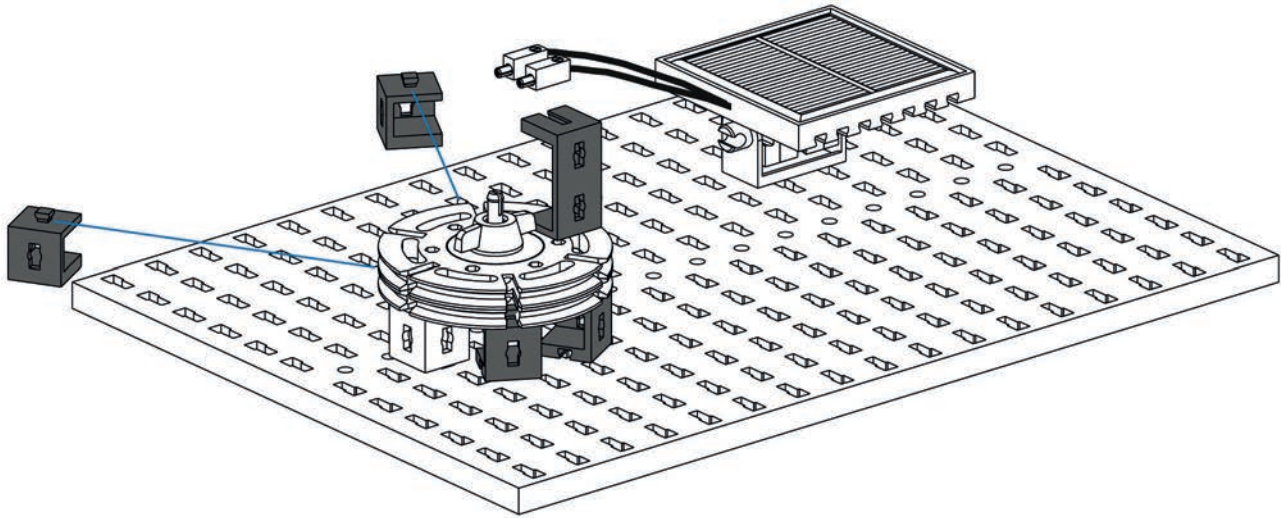
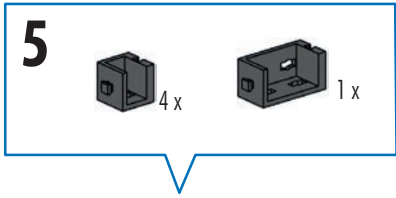


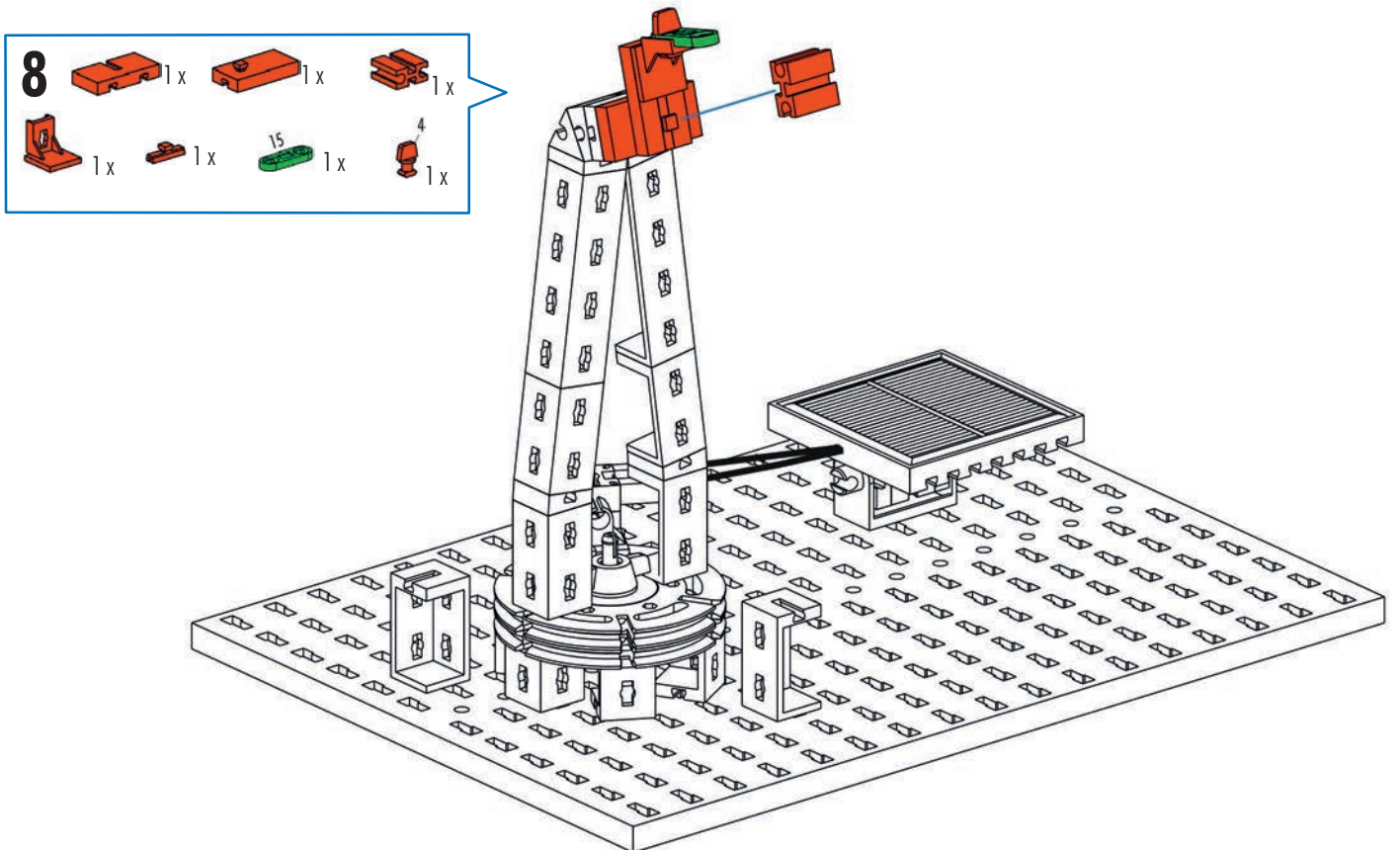
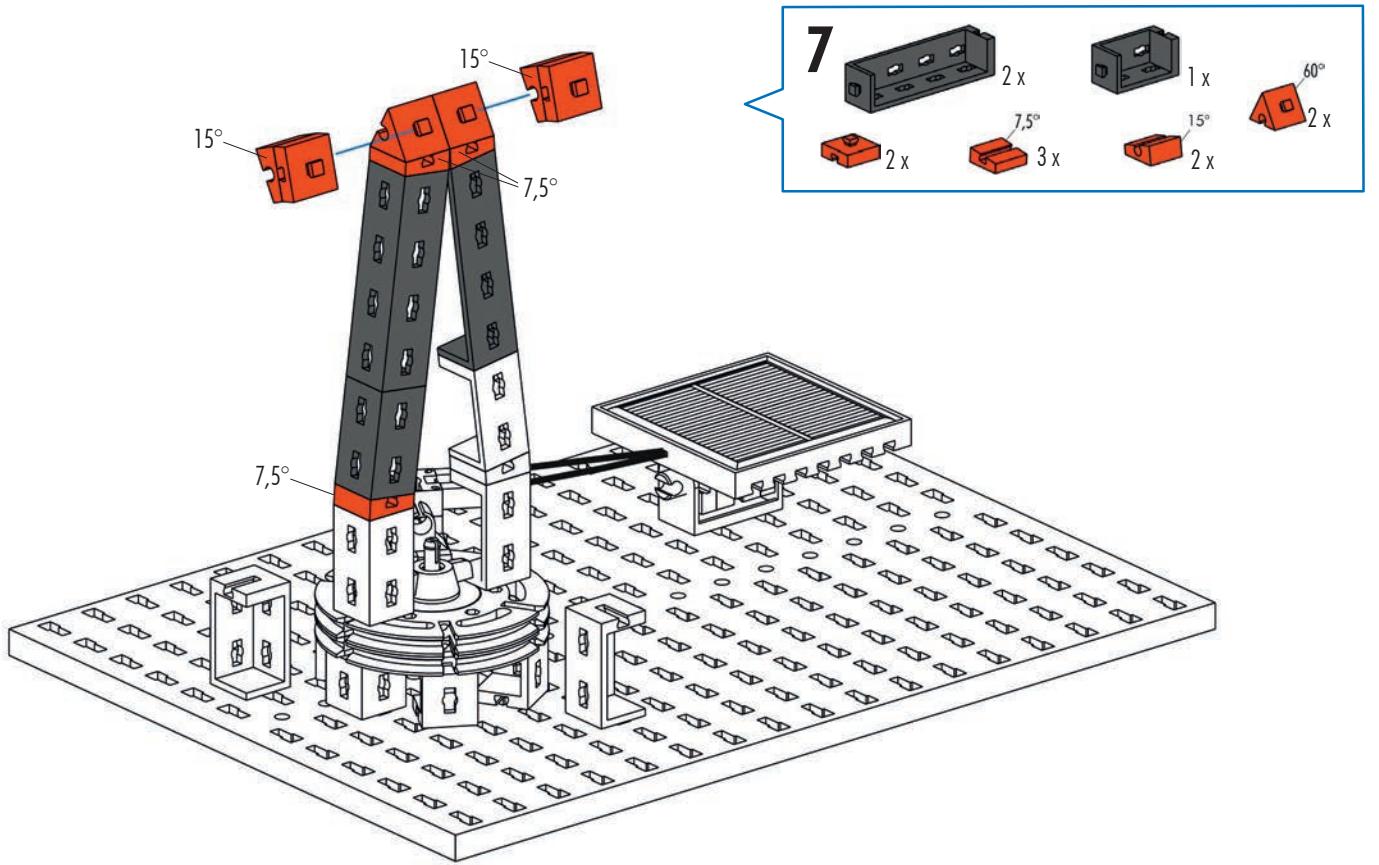
Ventilator
Ventilating fan
Ventilateur

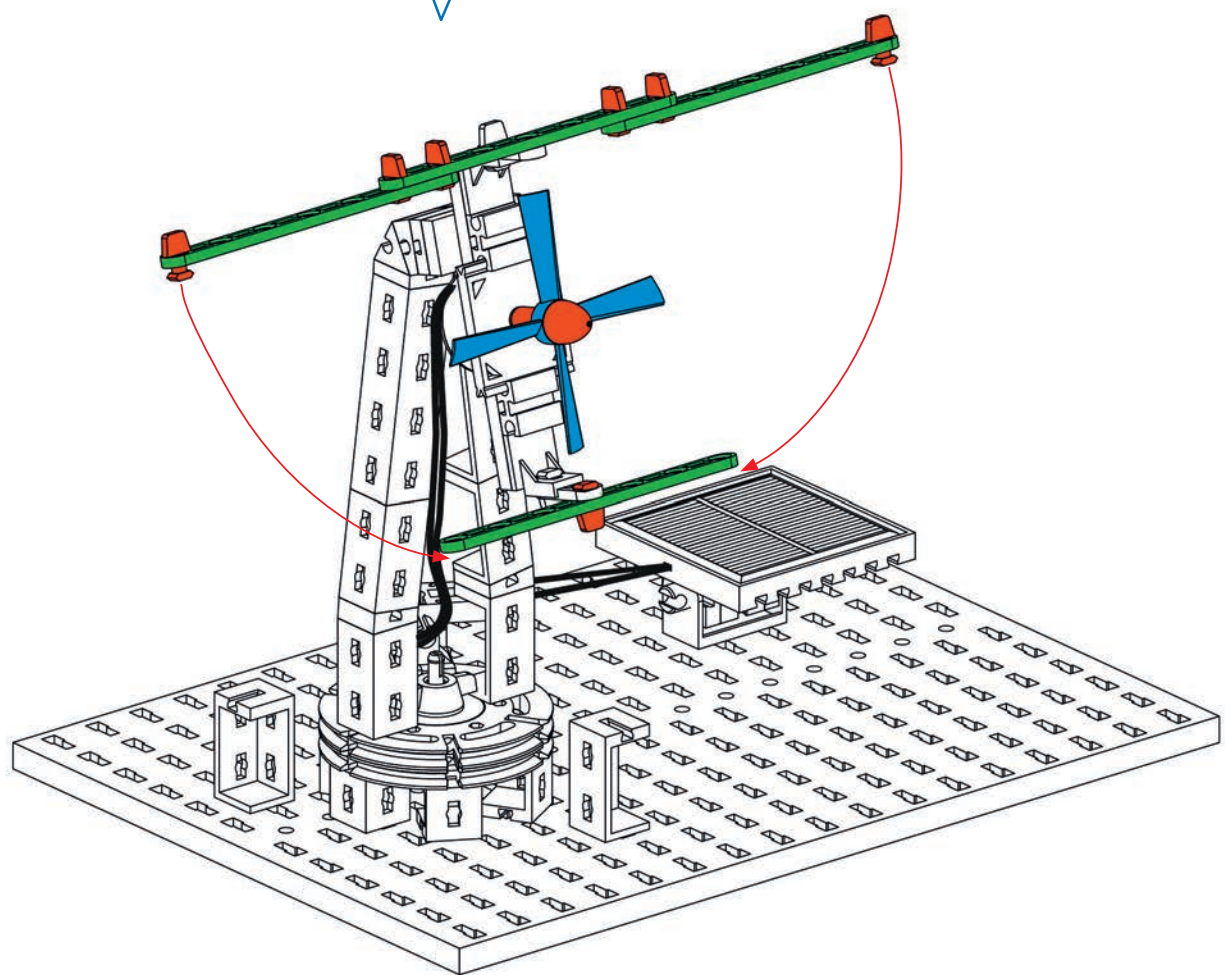
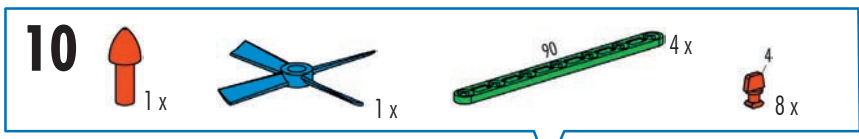
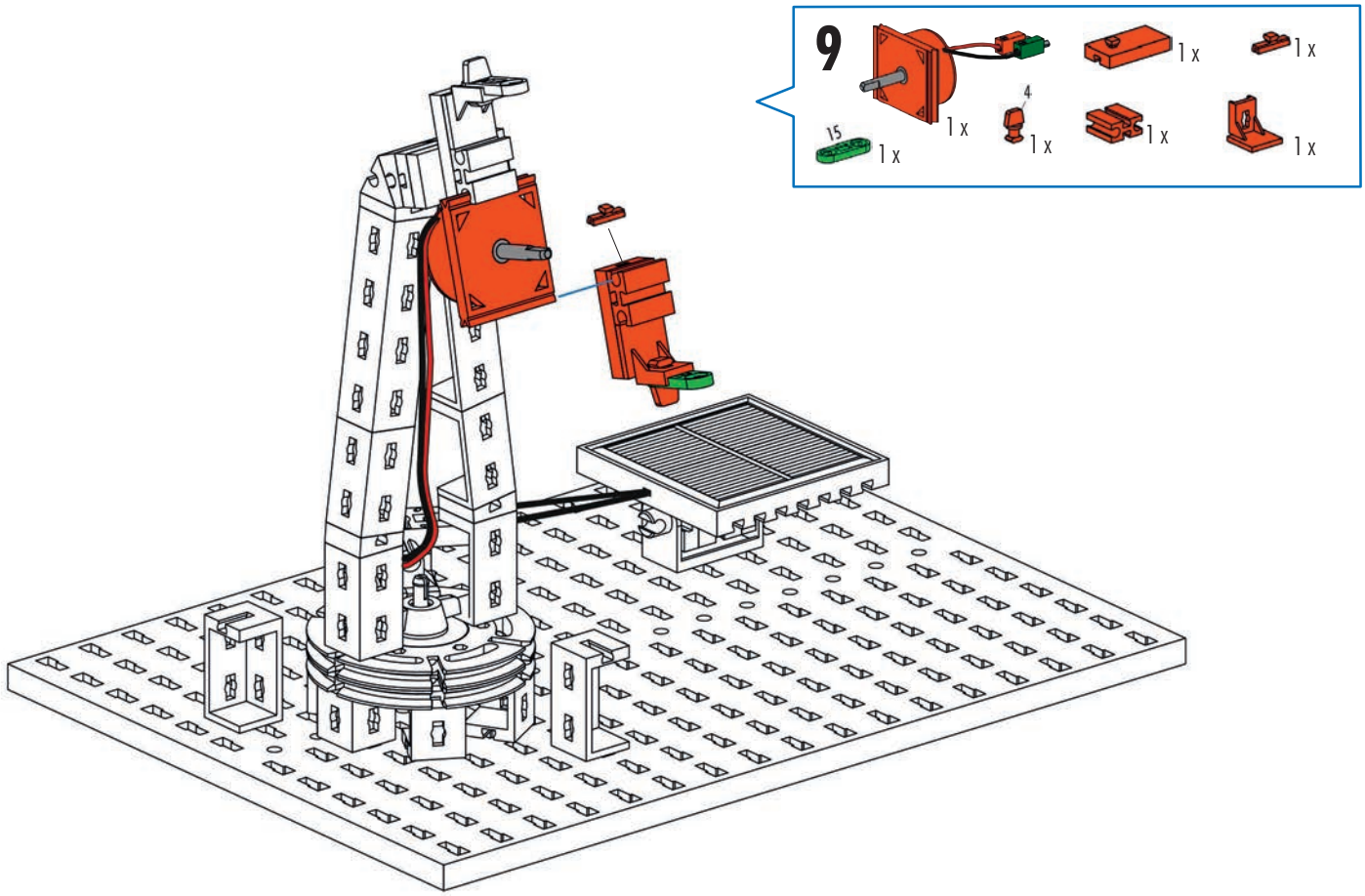
Ventilator
Ventilador
Ventilador

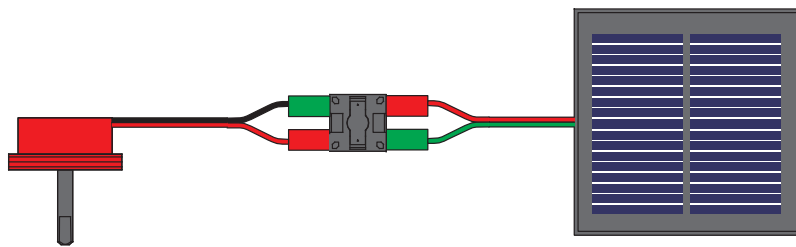
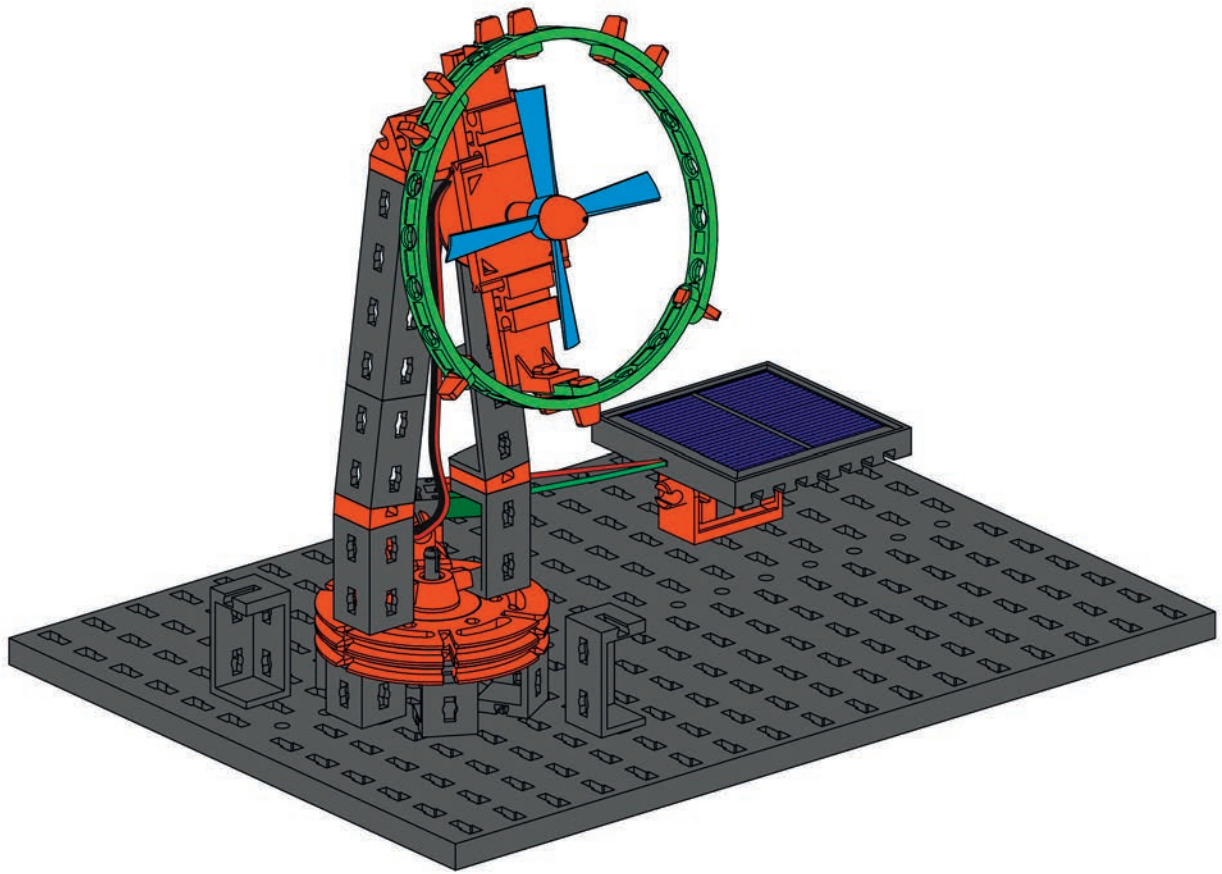
Ventola
Вентилятор
风扇

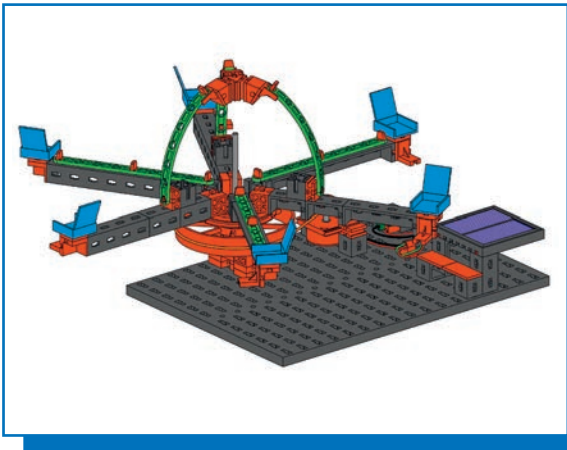










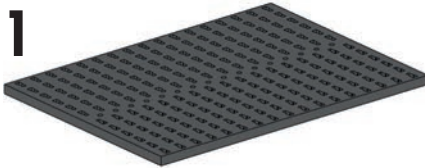






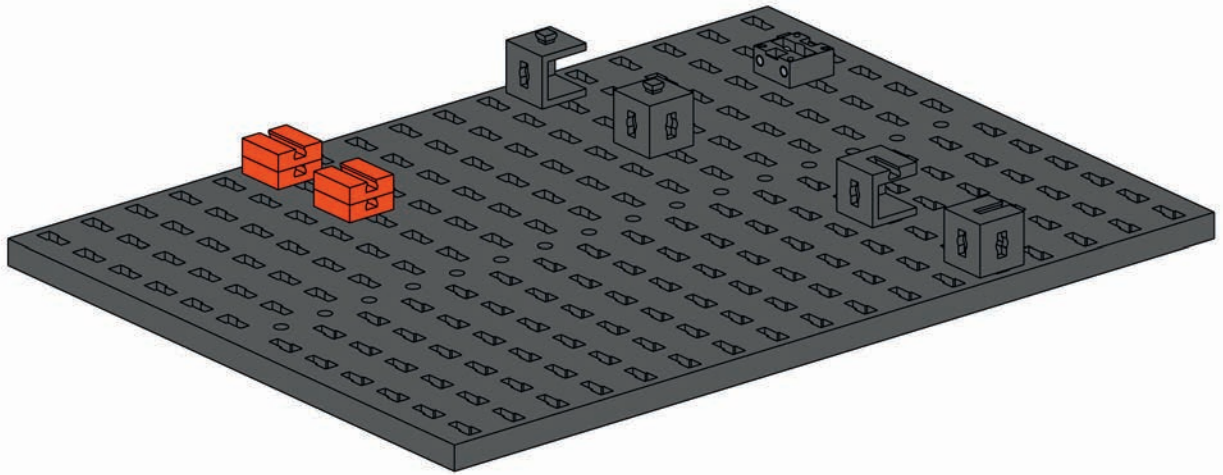
Karussell
Merry-go-round
Manège

Draaimolen
Tiovivo
Carrossel






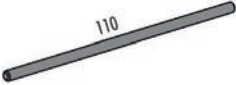
Giostra
Карусель
旋转木马

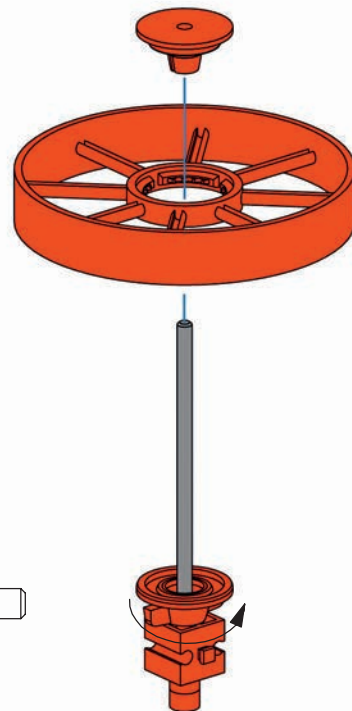
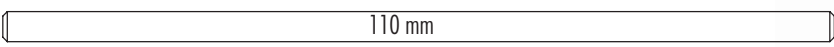
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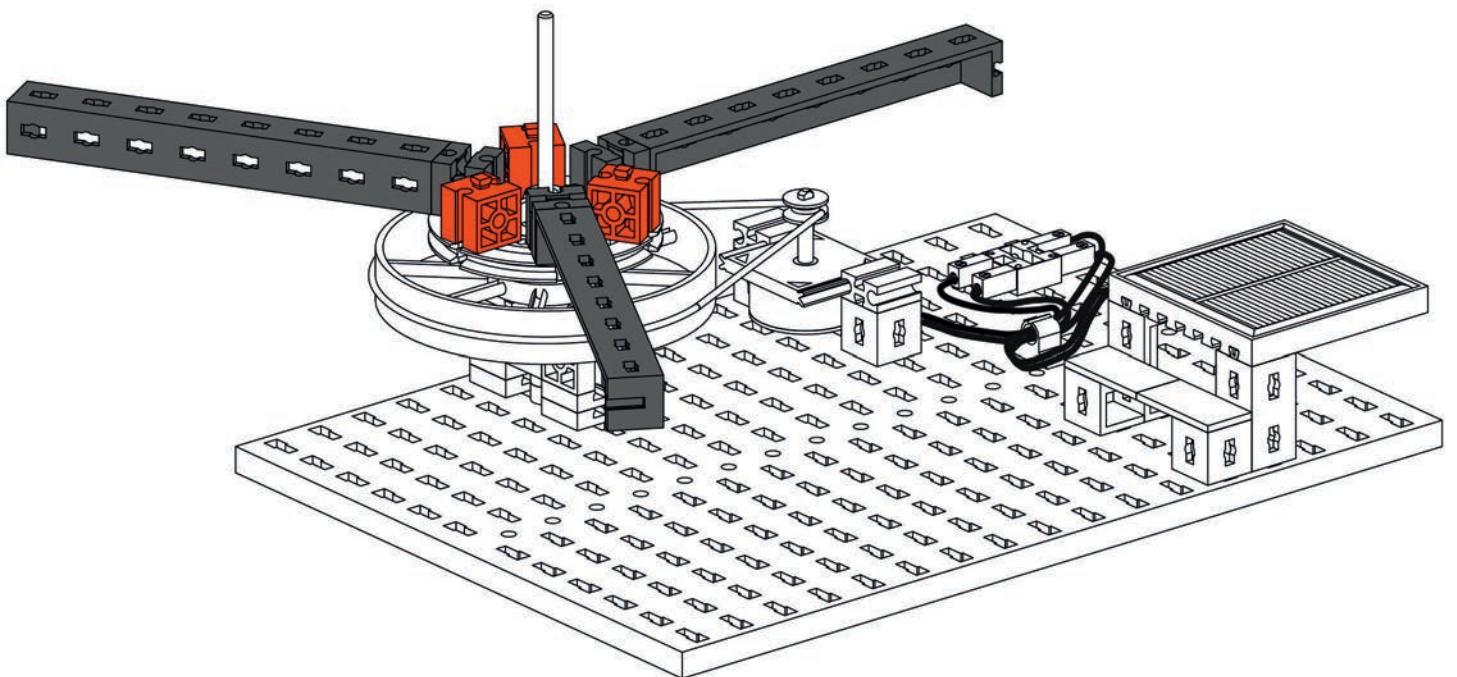
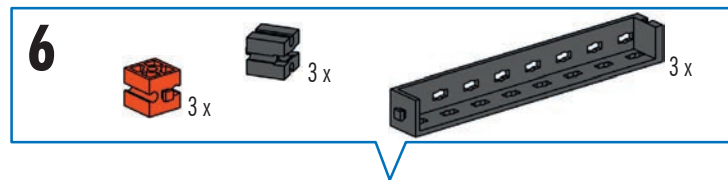
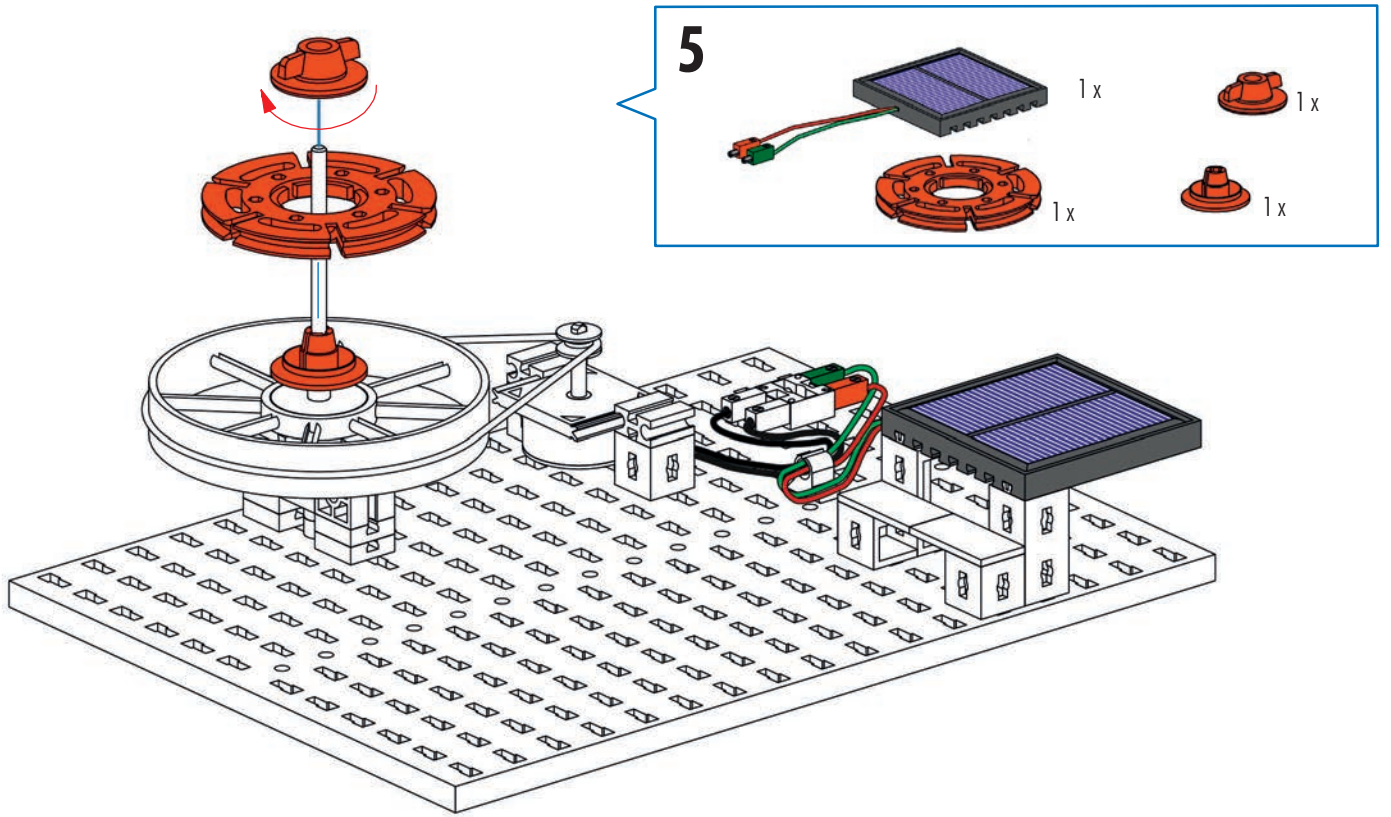
-  1x
-  2x
-  2x
-  1x
-  4x



2

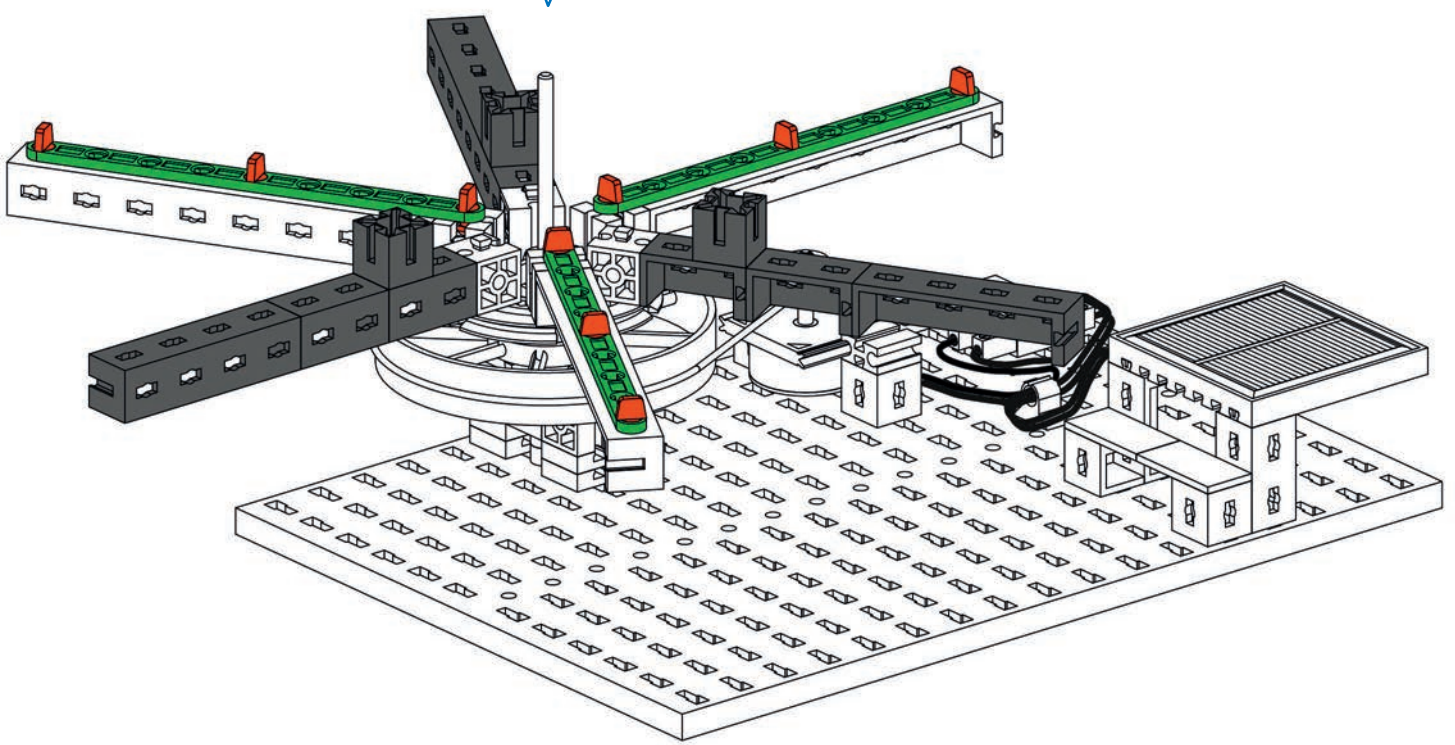
-  1x
-  1x
-  1x
-  1x
-  2x
-  1x





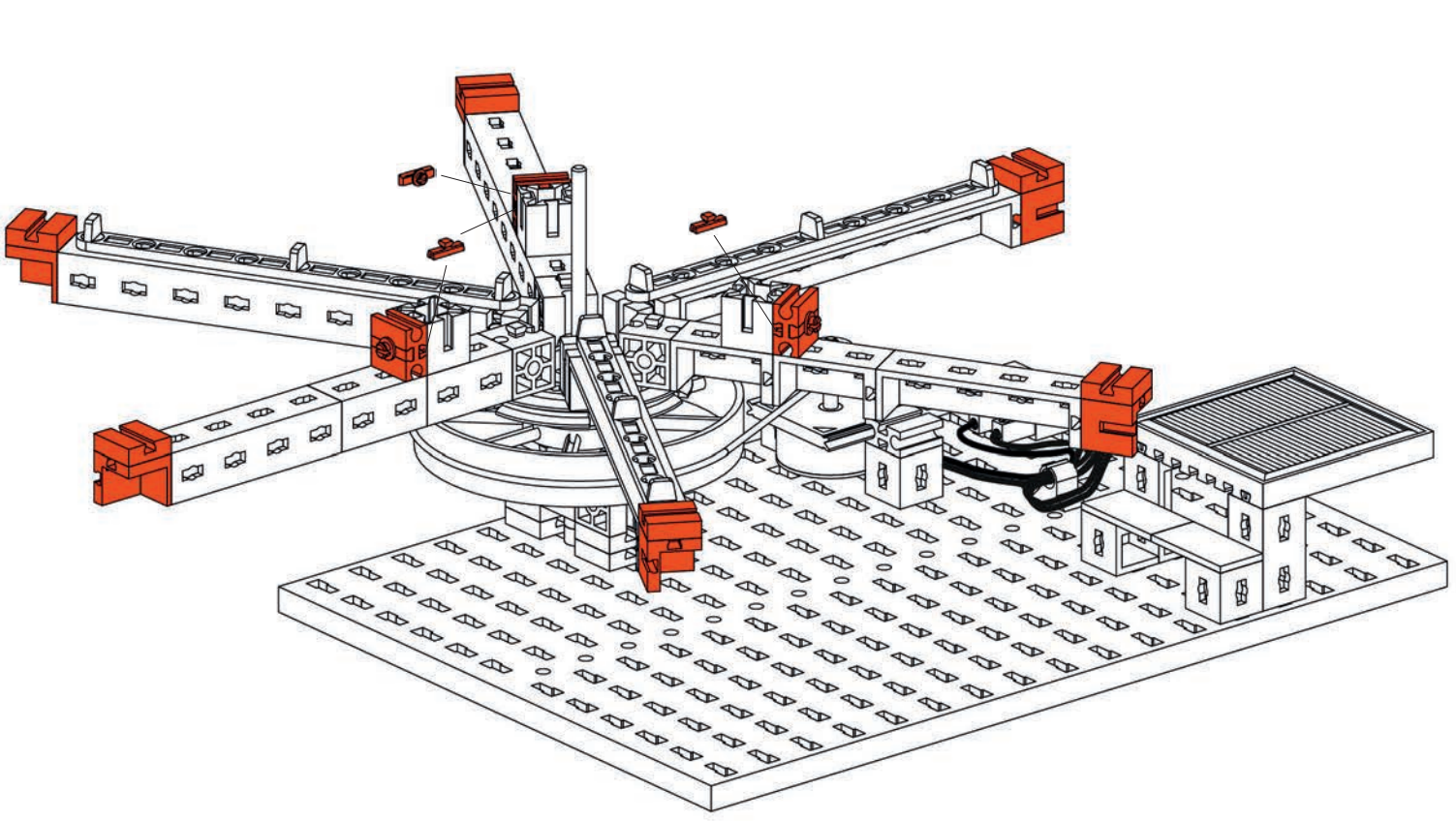
7

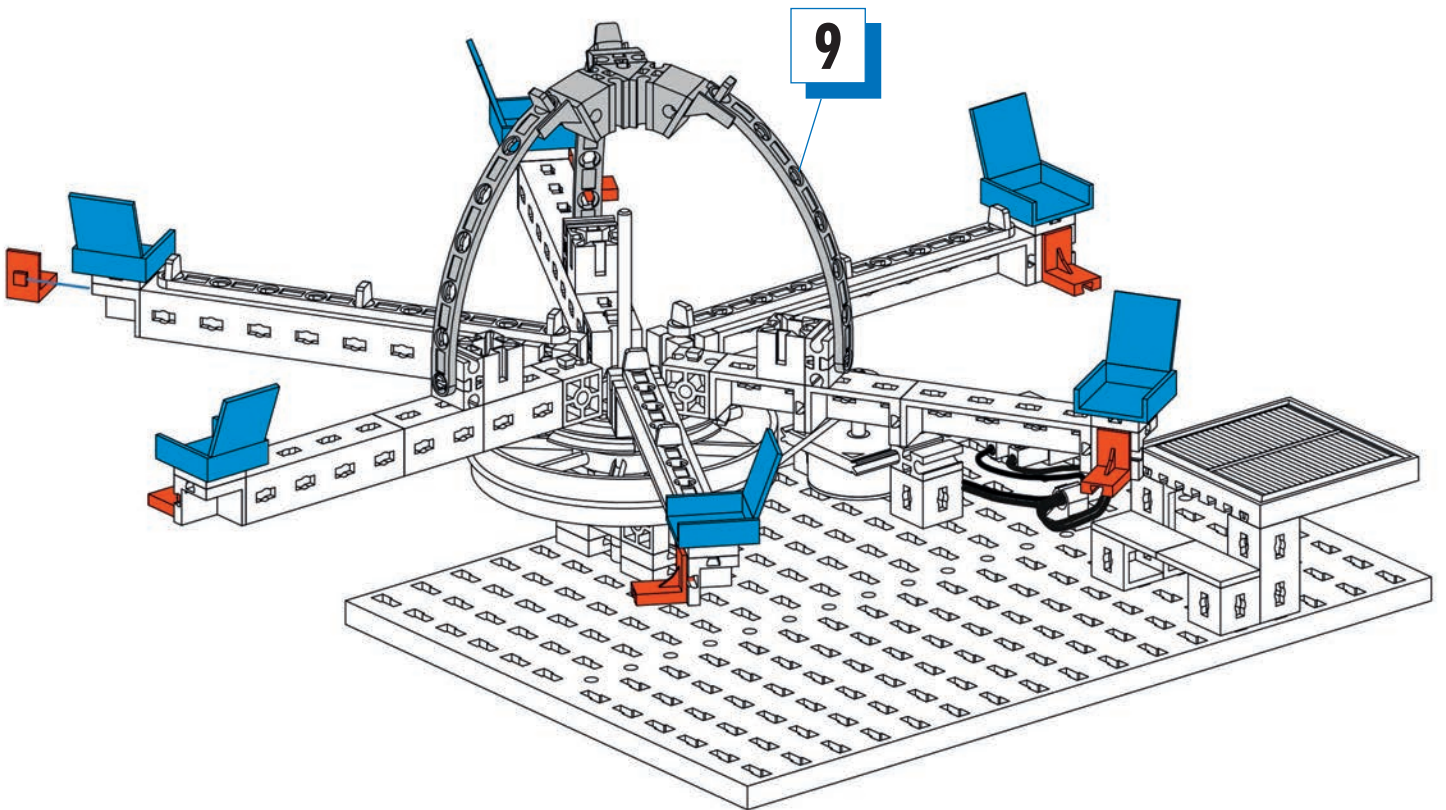
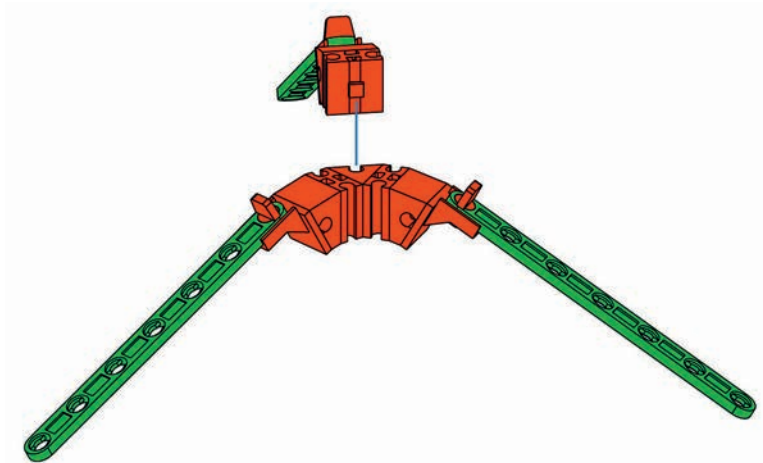
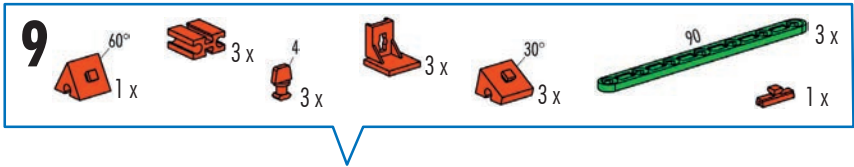
- 1 x [Grey Technic Beam 1x10]
- 2 x [Grey Technic Beam 1x5]
- 4 x [Grey Technic Beam 1x3]
- 3 x [Grey Technic Beam 1x2]
- 9 x [Red Technic Pin]
- 3 x [Green Technic Beam 1x120]

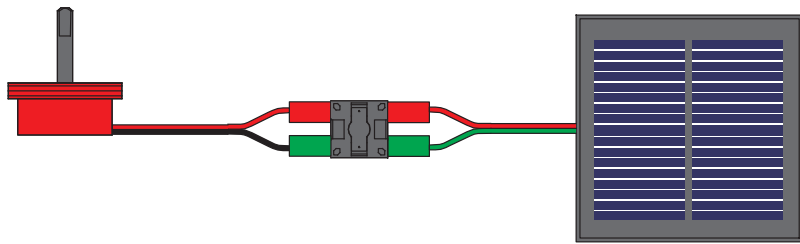
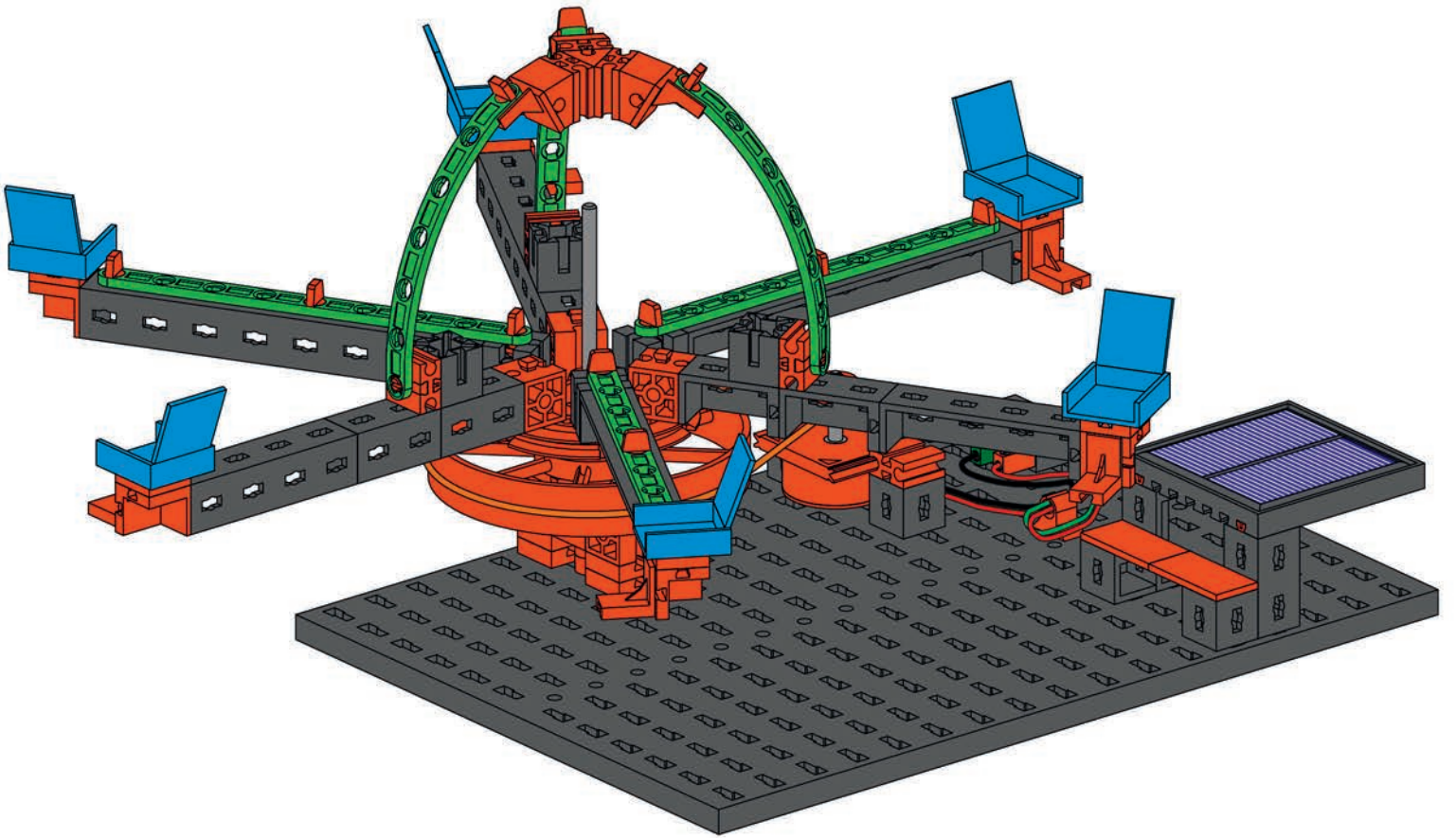


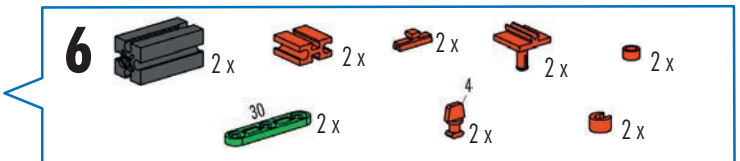
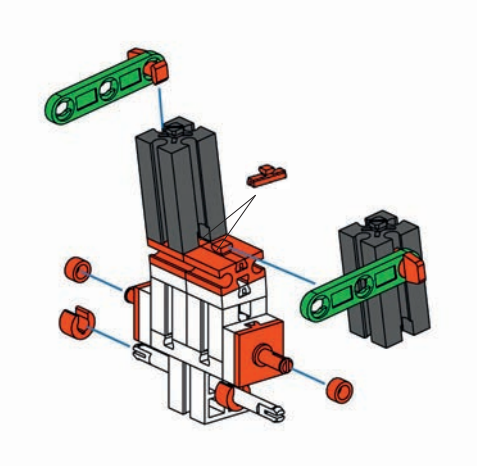
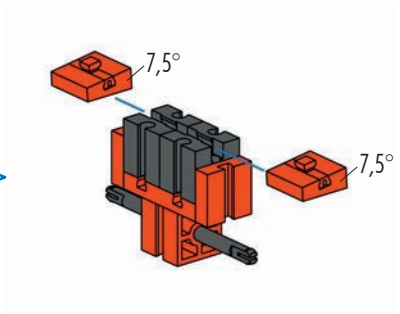
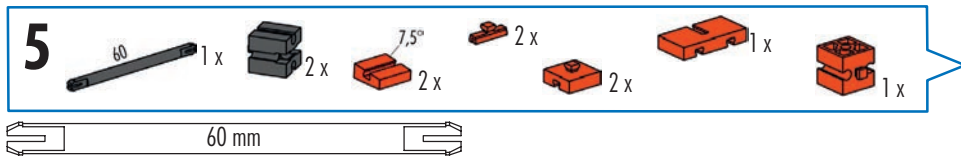
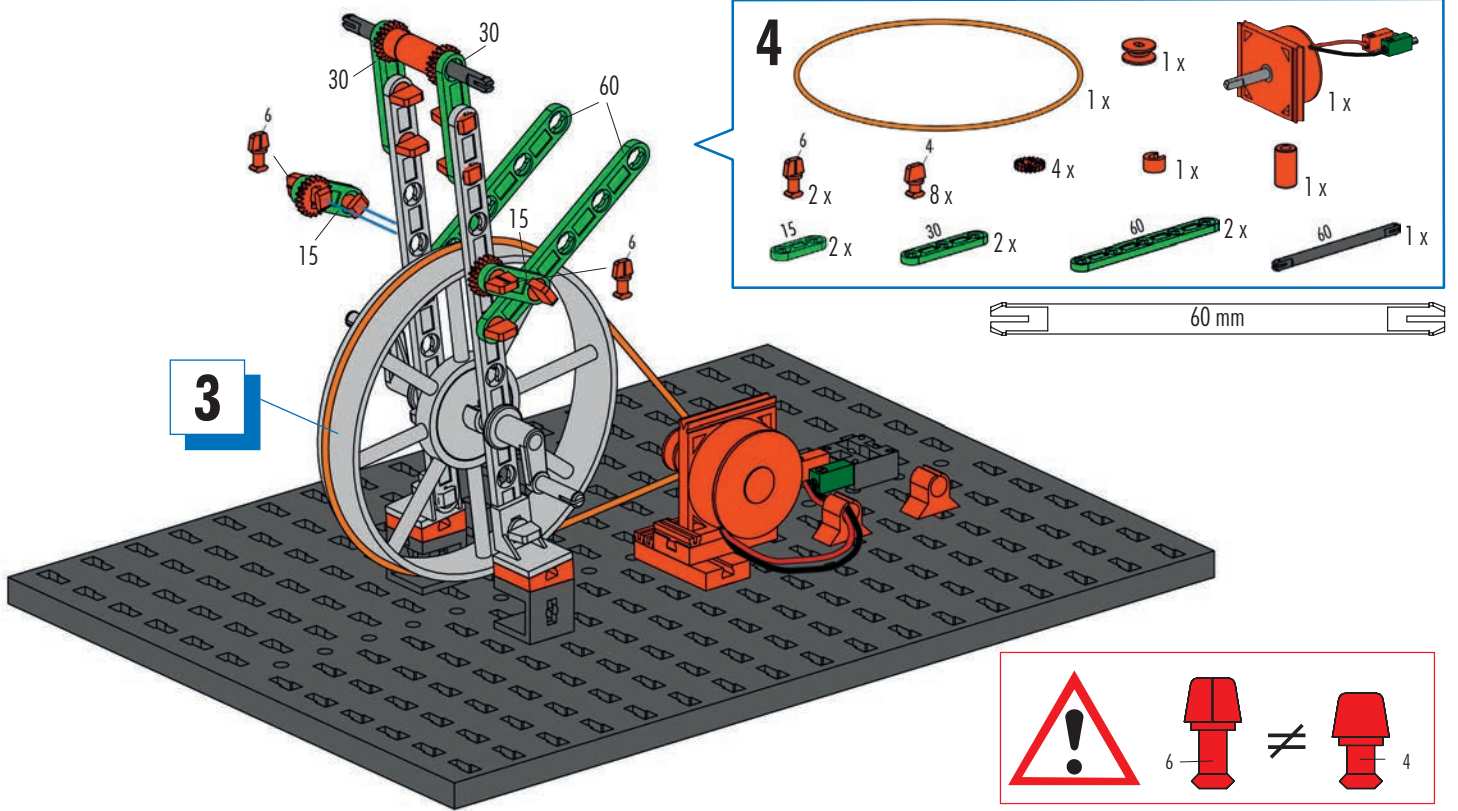
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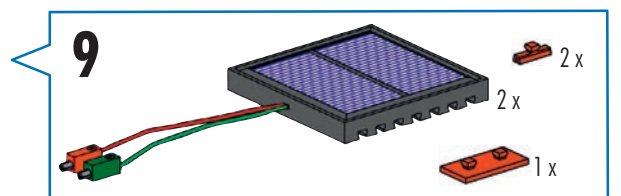
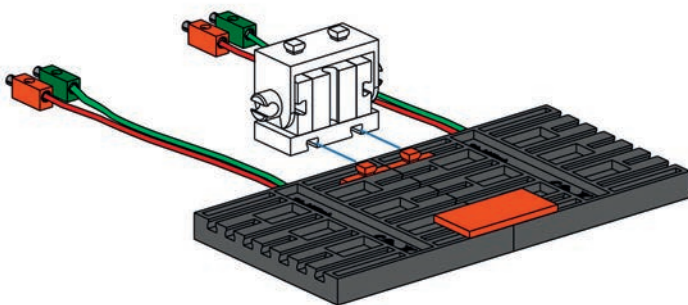
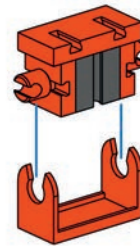
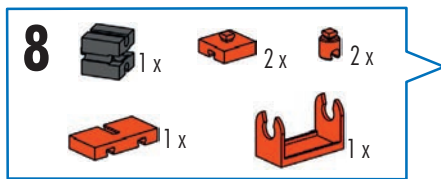
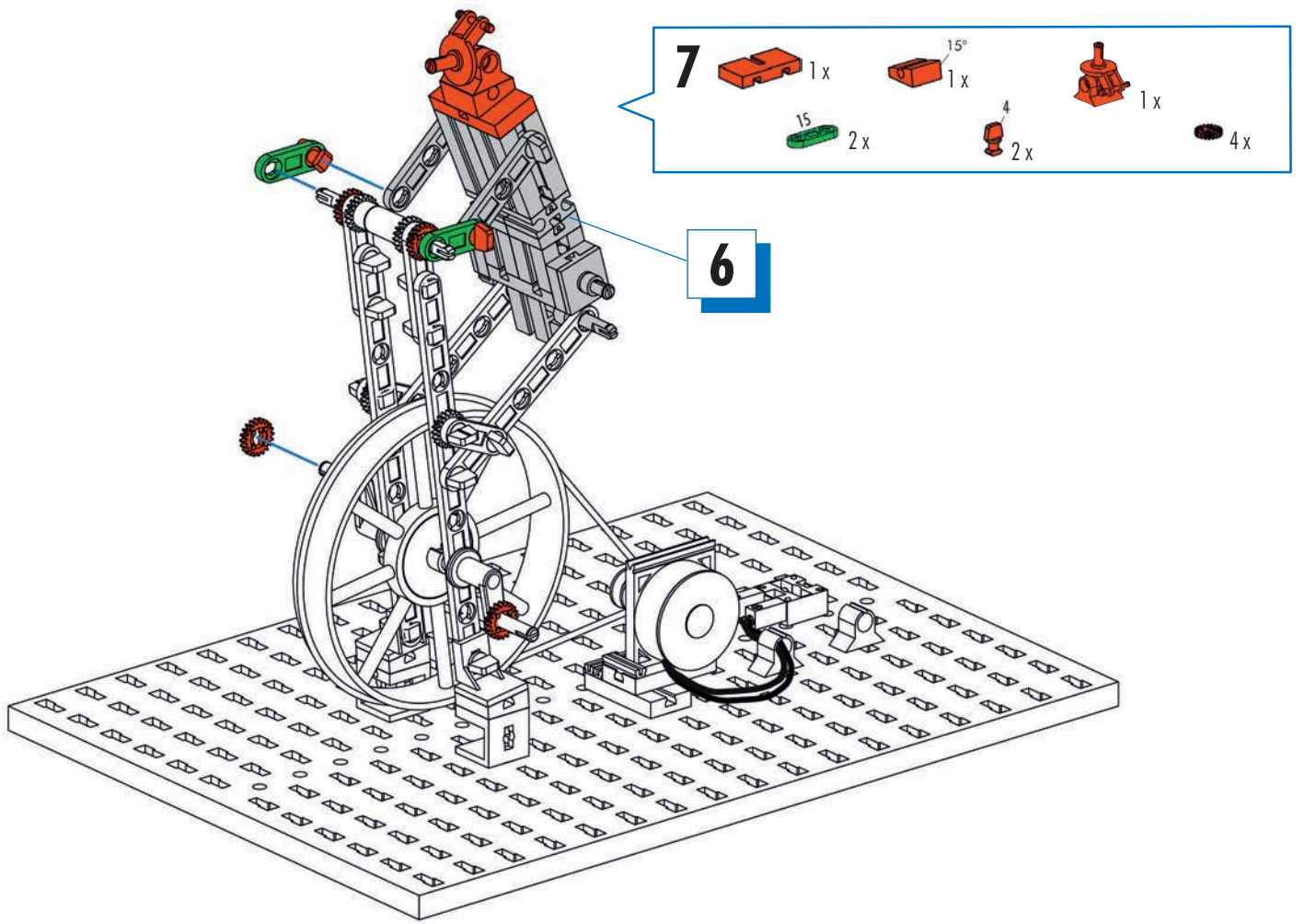
- 6 x [Red Technic Pin]
- 6 x [Red Technic Pin]
- 3 x [Red Technic Pin]
- 3 x [Red Technic Pin]
- 3 x [Red Technic Pin]



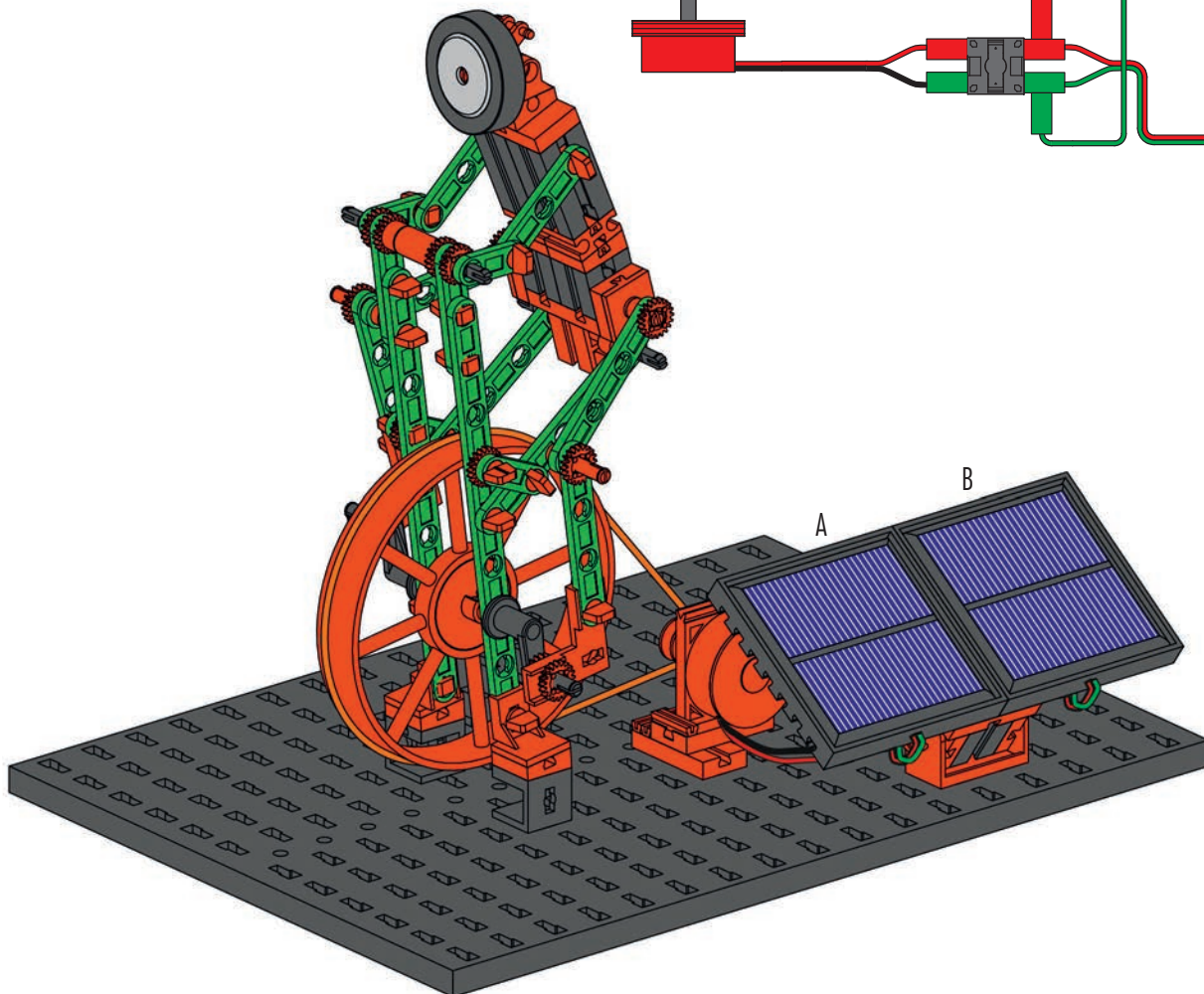
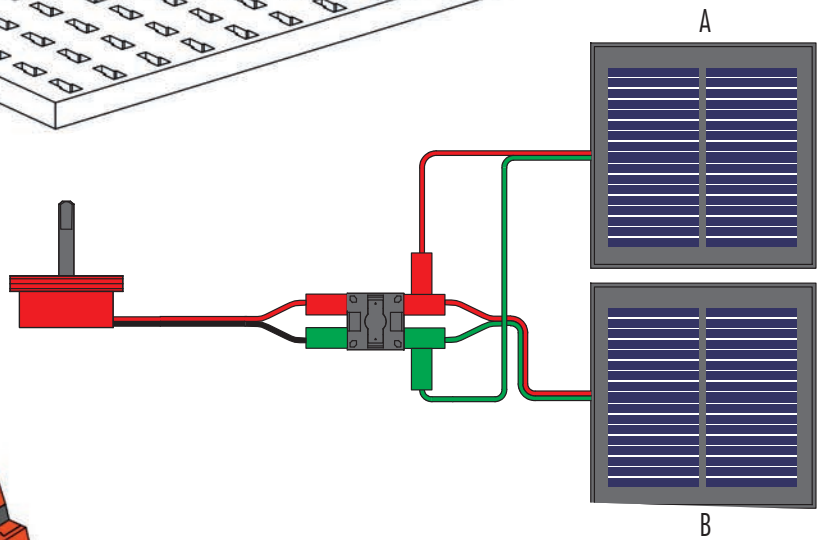
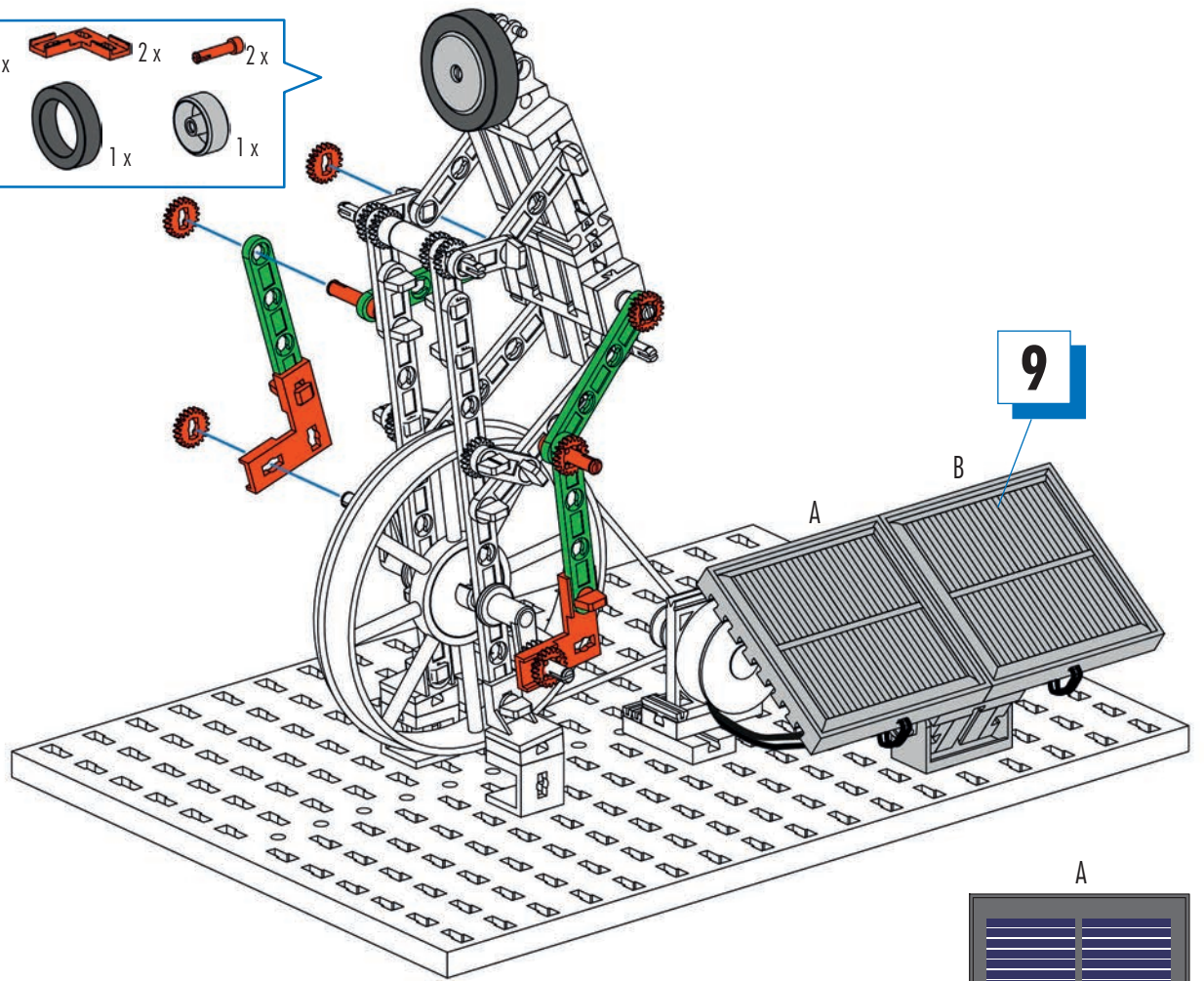


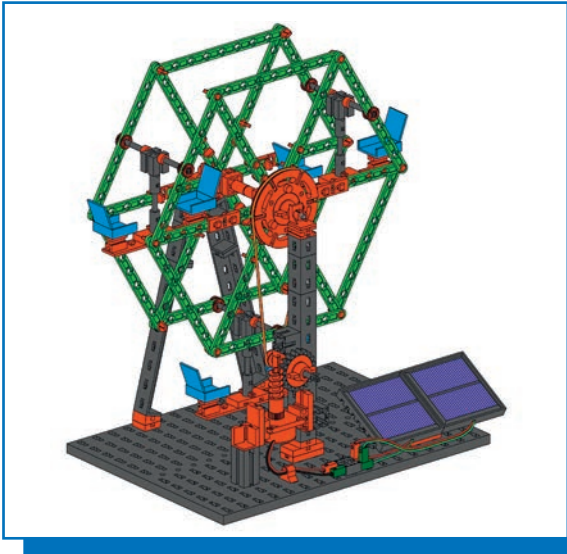






- 10**
- 45 4x
 - 2x
 - 2x
 - 6x
 - 2x
 - 1x
 - 1x

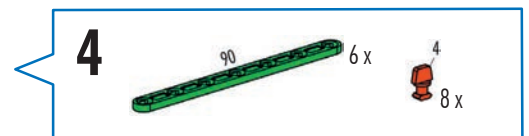
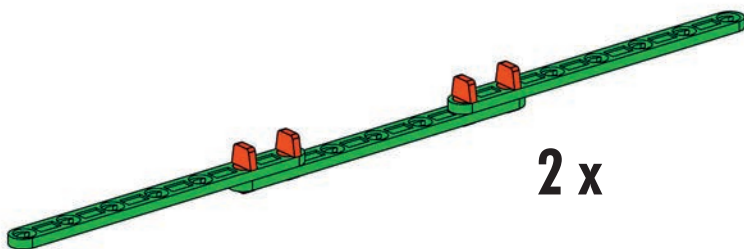
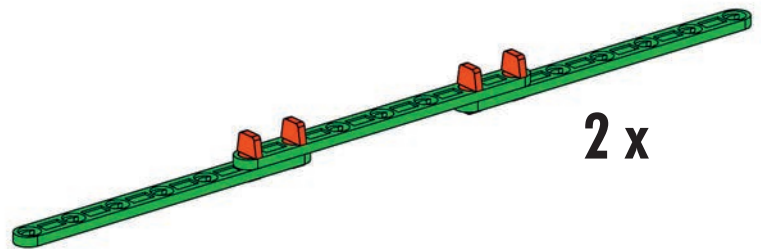
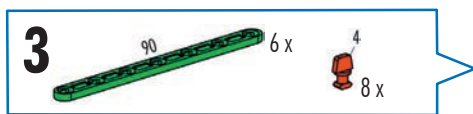
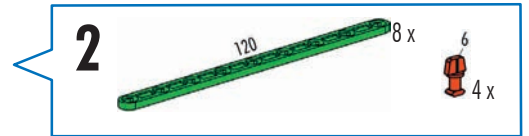
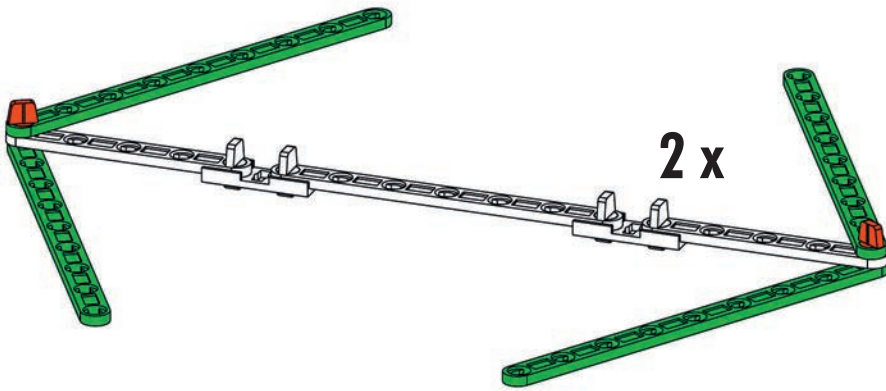
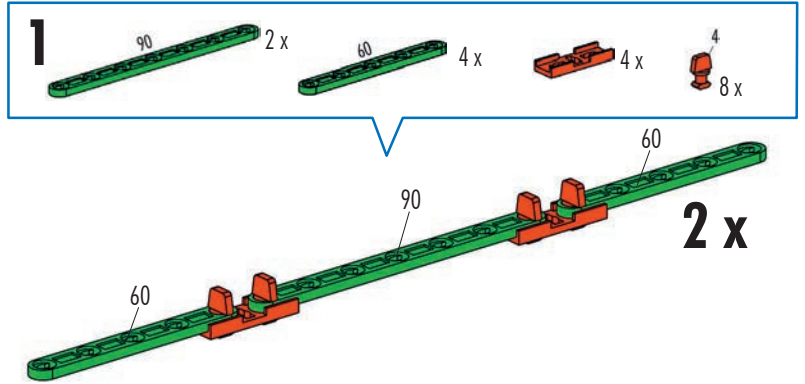


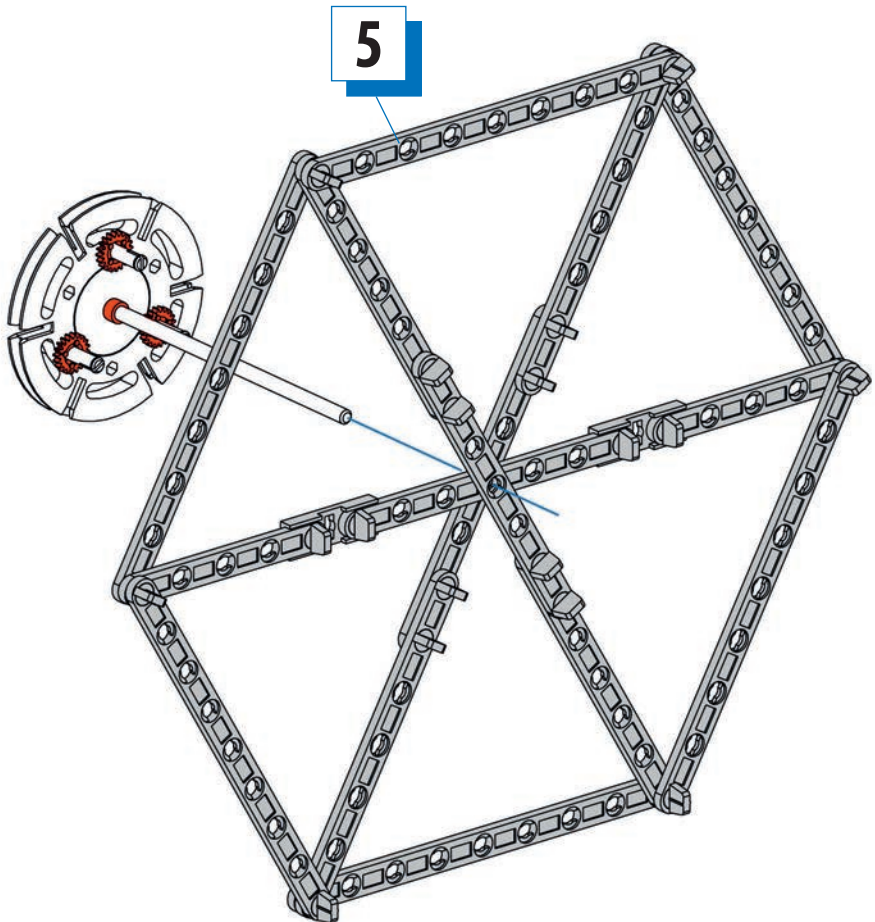
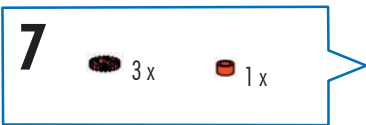
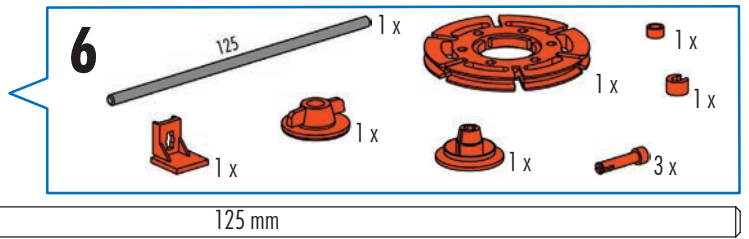
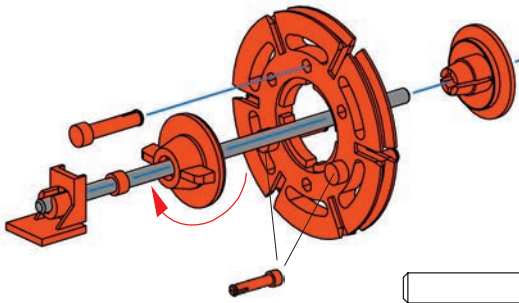
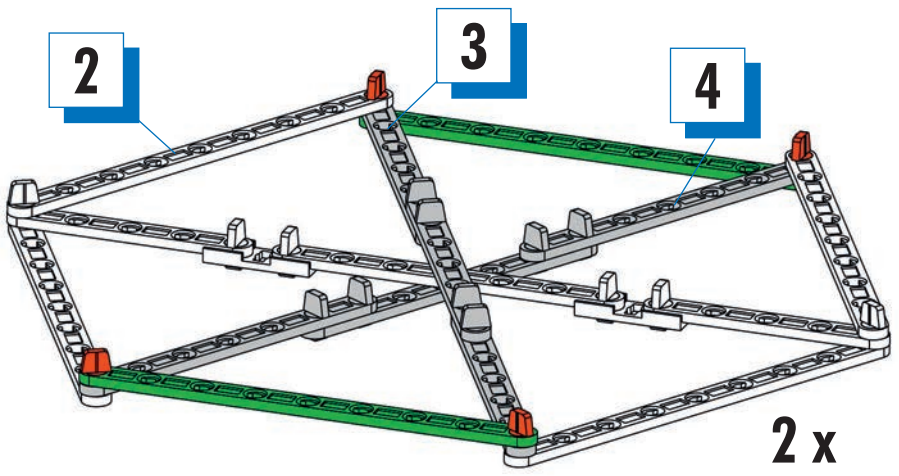
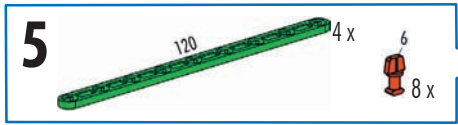


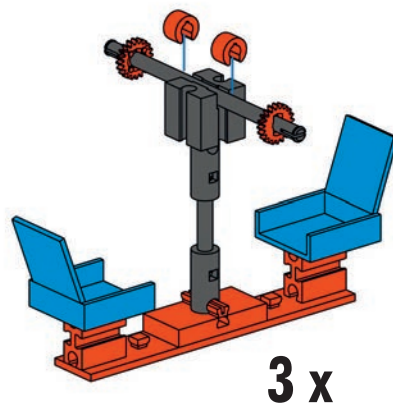
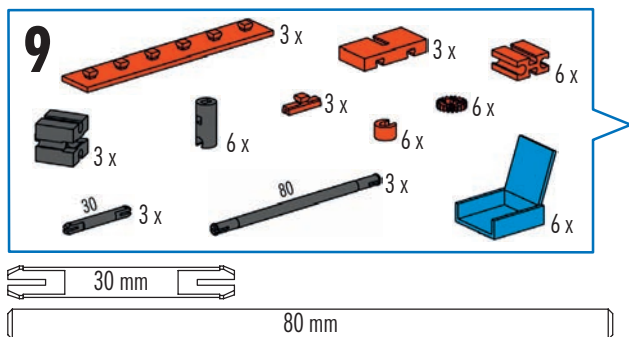
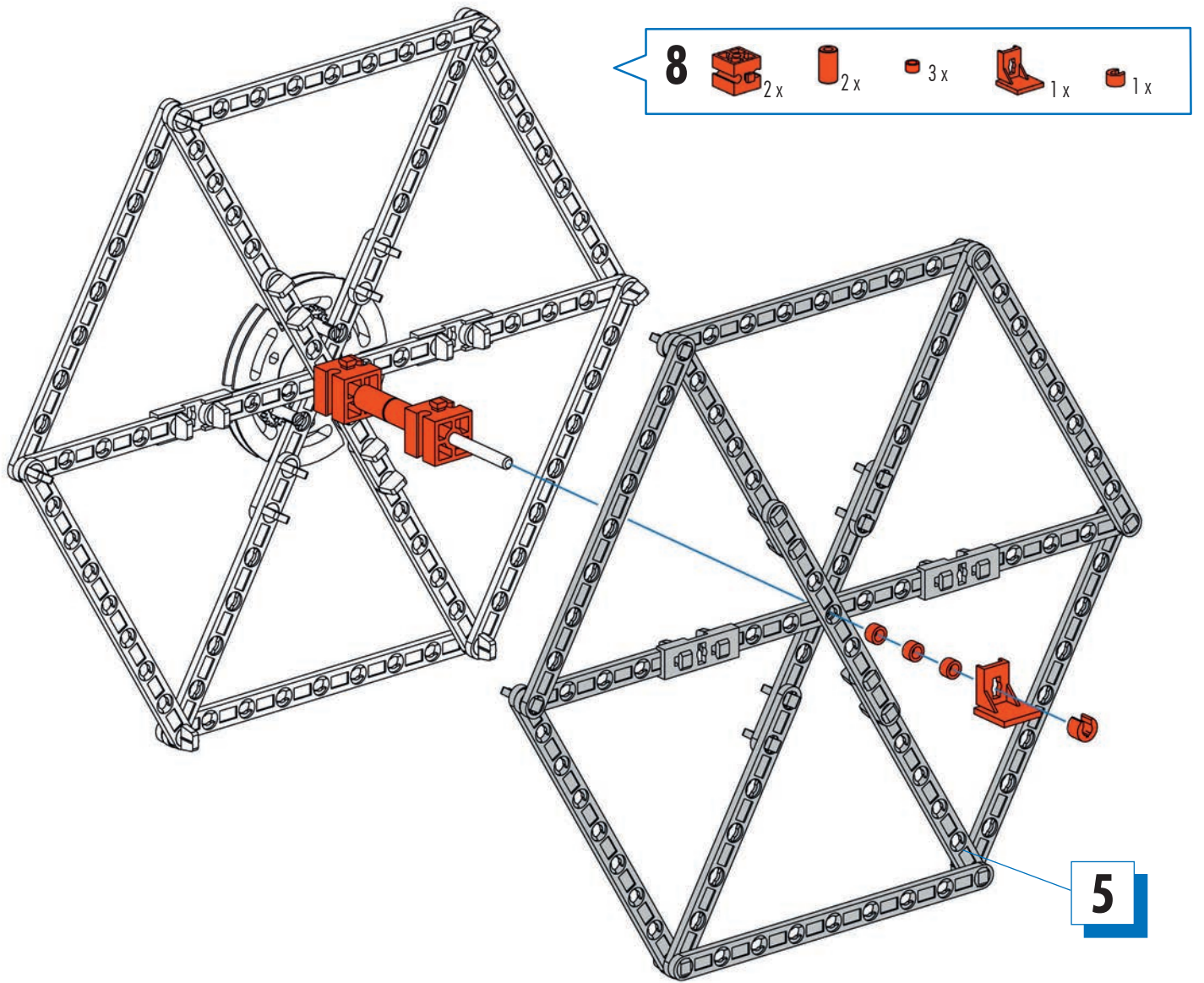
Riesenrad
 Ferris wheel
 Grande roue

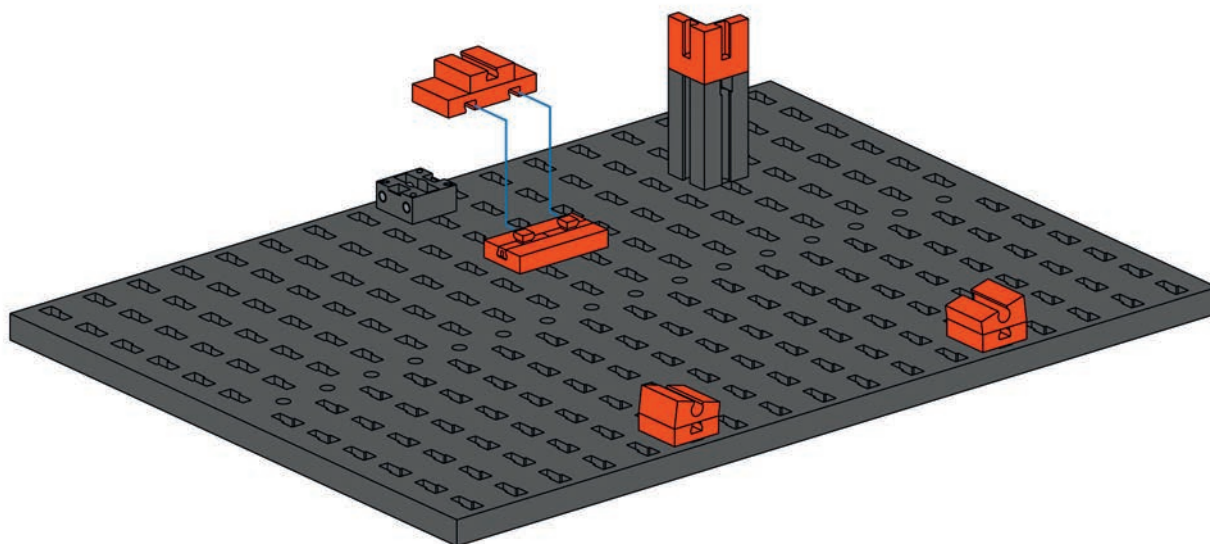
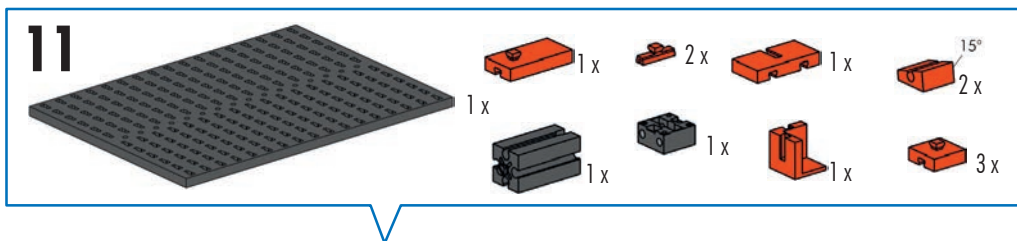
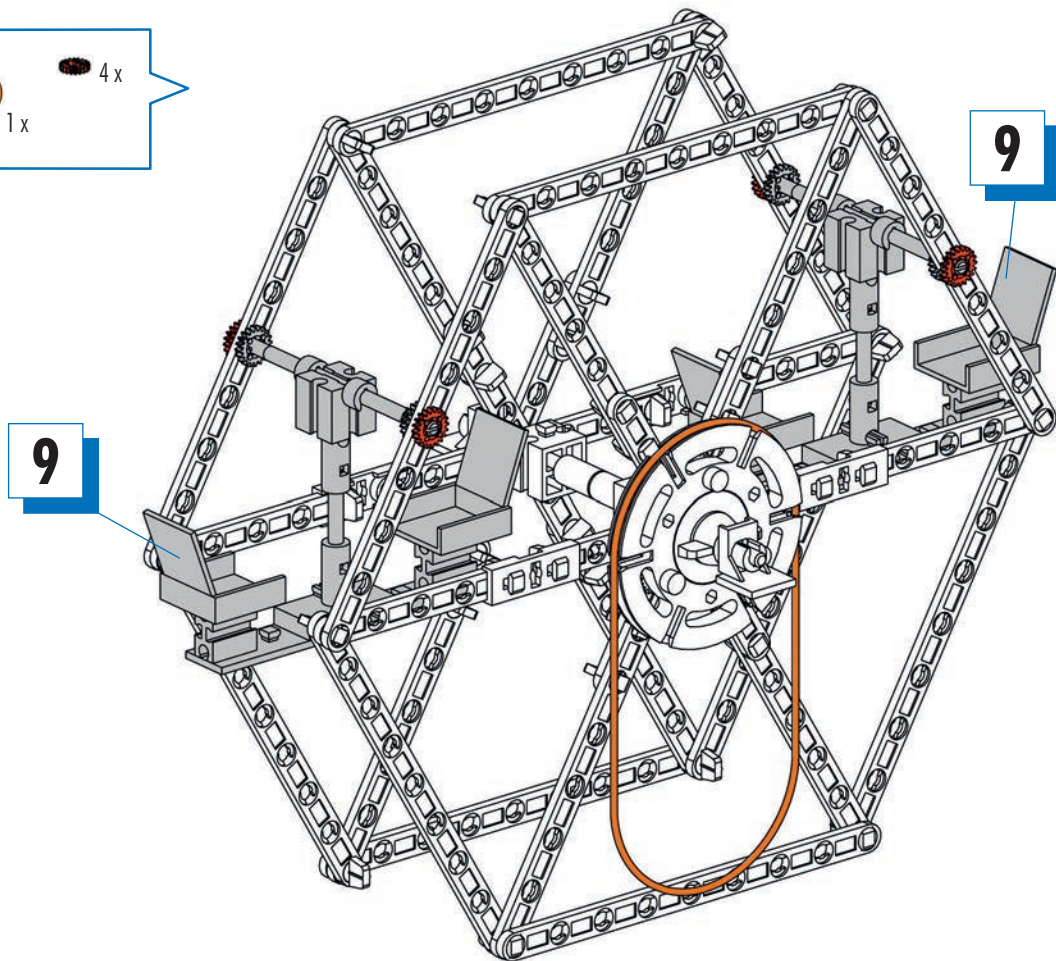
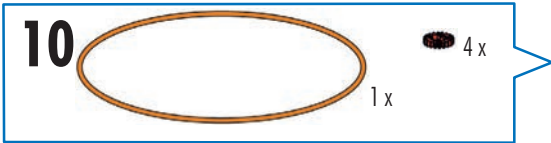
Reuzenrad
 Rueda gigante
 Roda gigante

Ruota gigante
 Колесо обозрения
 大转轮

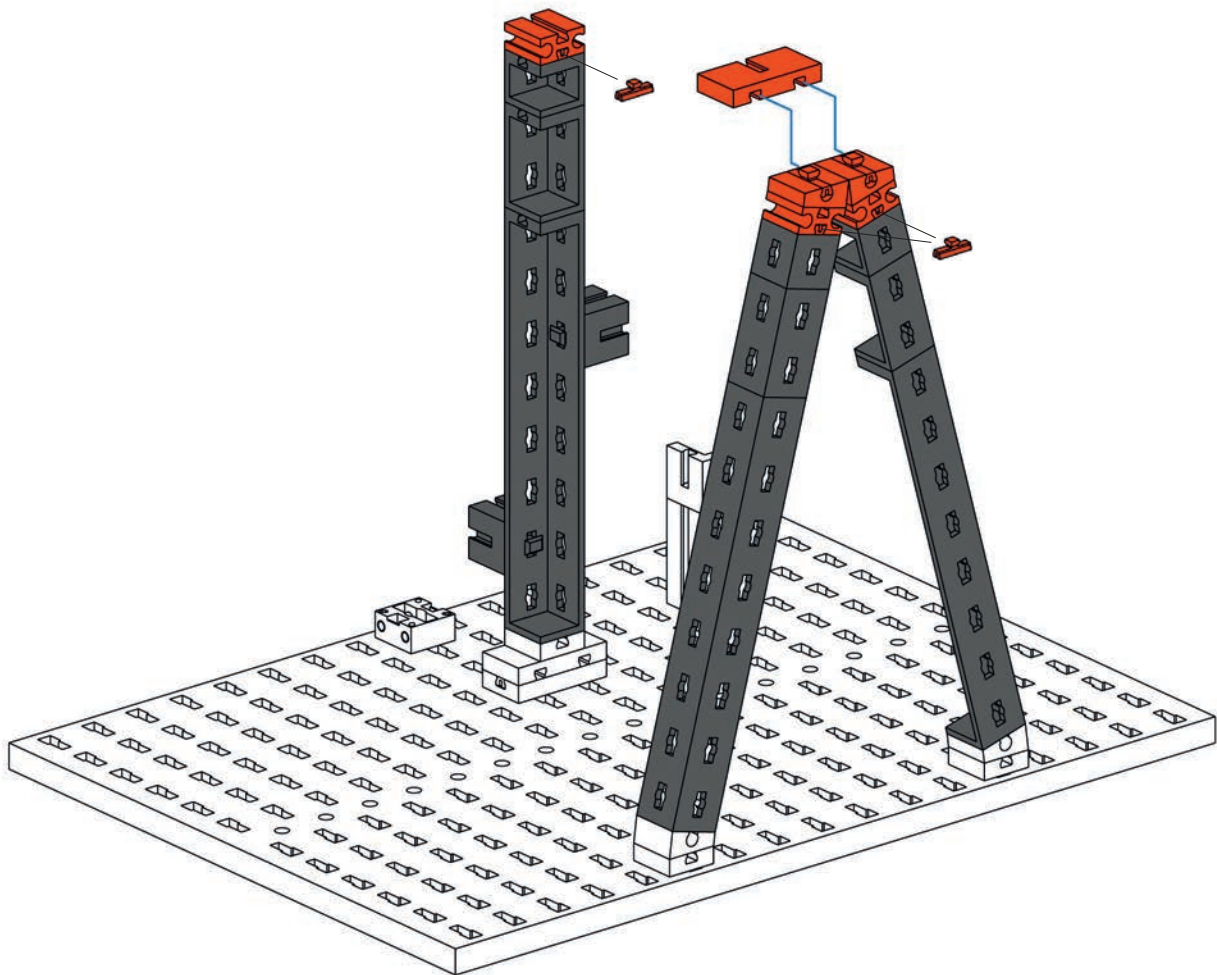
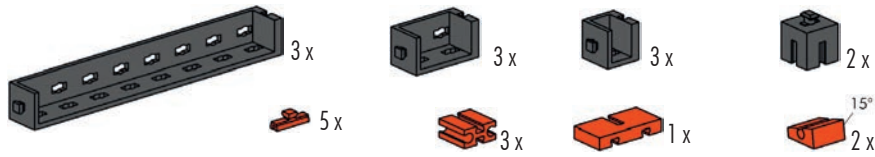


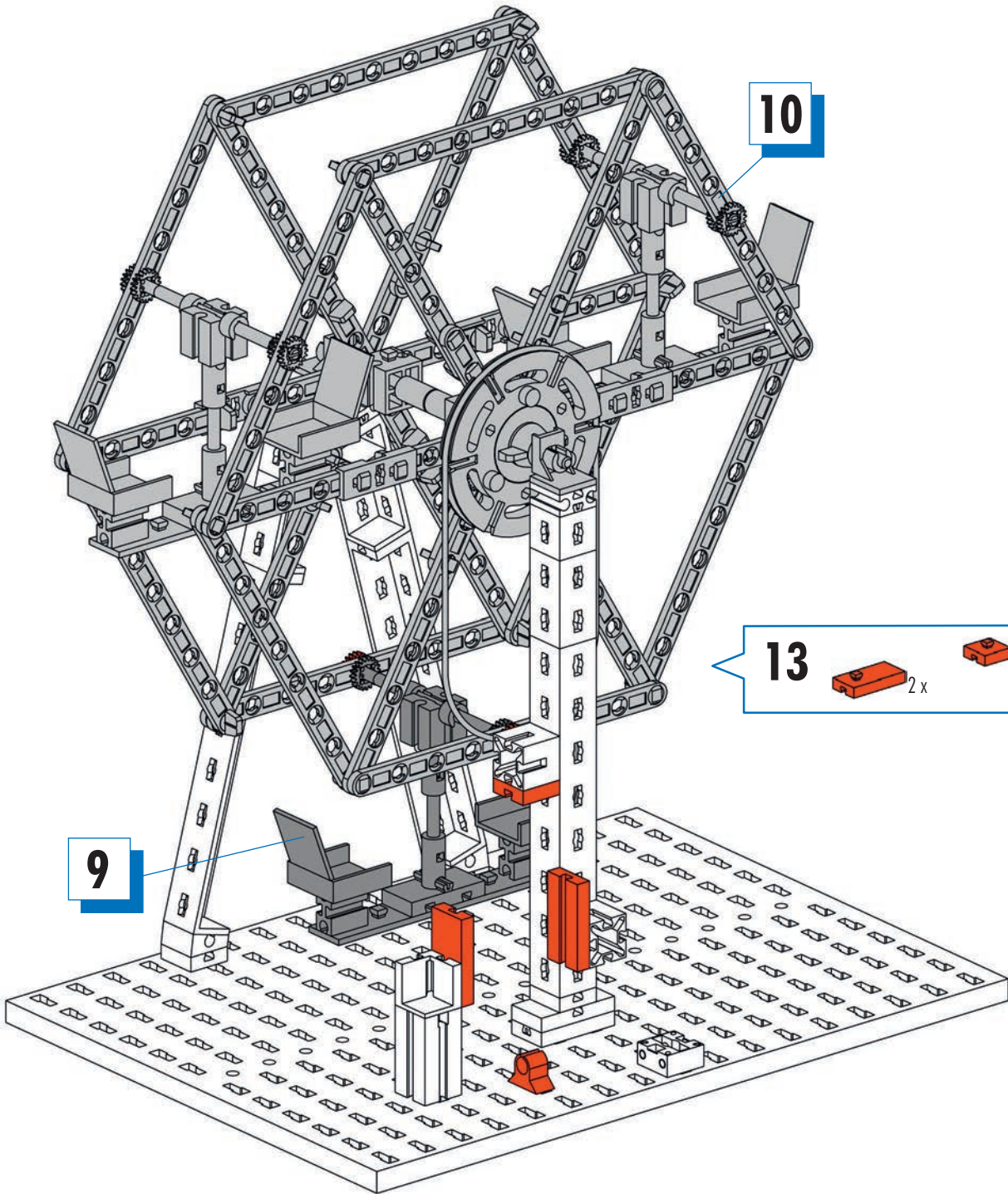










12












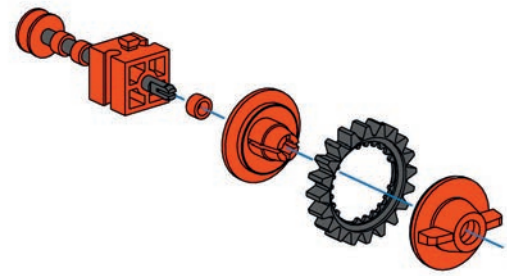
10

9

- 13
-  2x
 -  1x
 -  1x
 -  4x

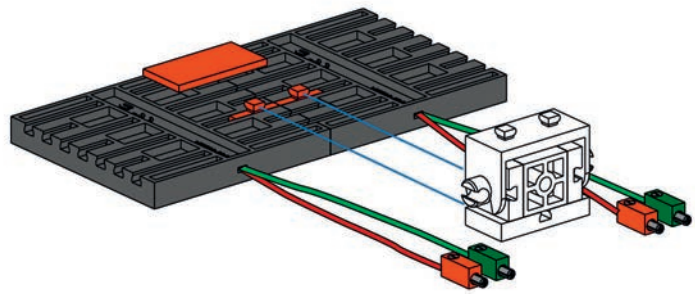
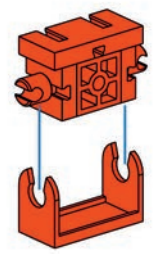
- 14
-  1x
 -  1x
 -  3x
 -  1x
 -  1x
 -  1x
 -  1x

60 mm



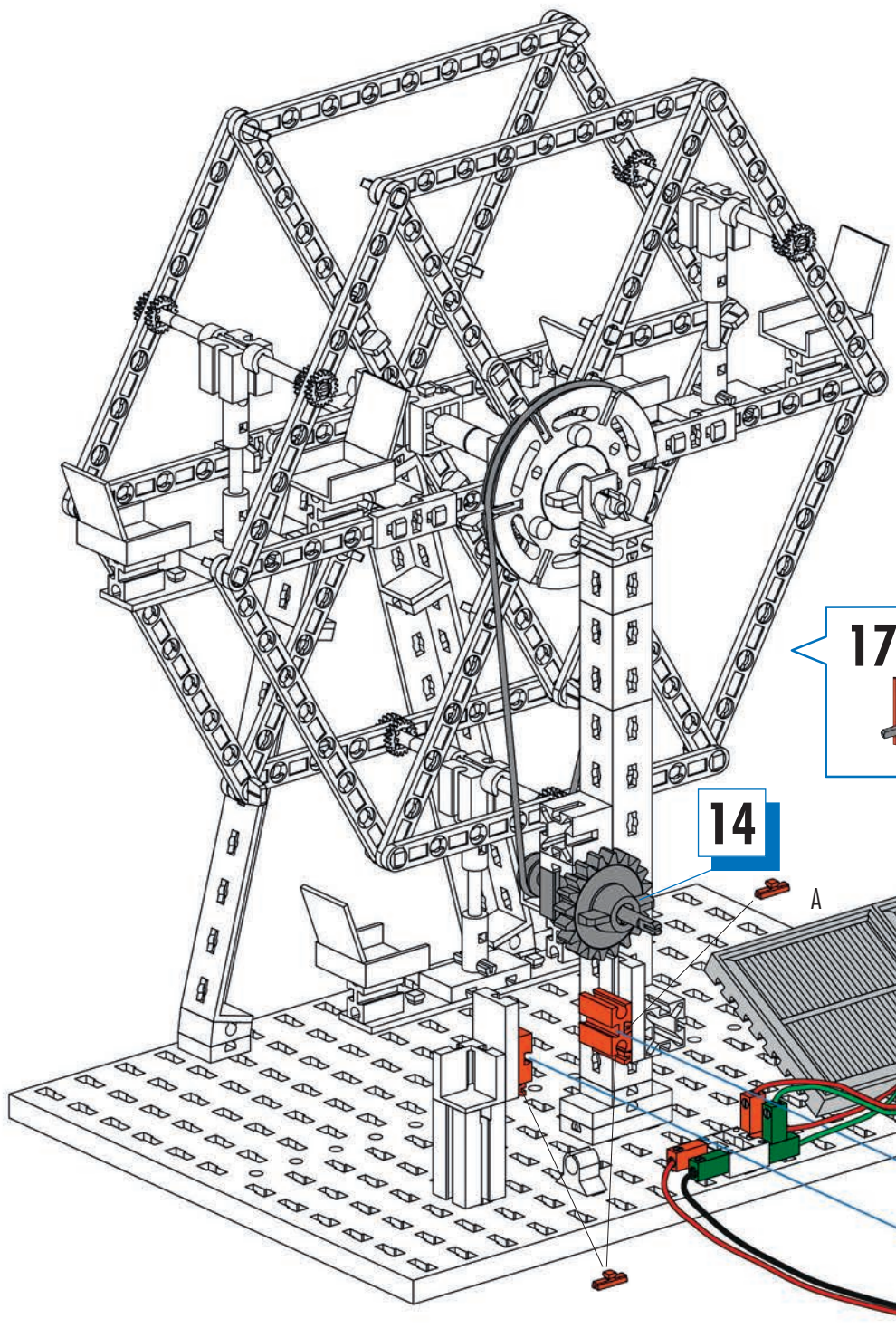
15

- 1x [Orange 1x2 Technic Brick]
- 2x [Orange 1x2 Technic Brick]
- 2x [Orange Pin]
- 1x [Orange 1x2 Technic Brick]
- 1x [Orange U-Bracket]



16

- 2x [Orange Pin]
- 2x [Grey 1x4 Technic Plate]
- 1x [Orange 1x2 Technic Brick]

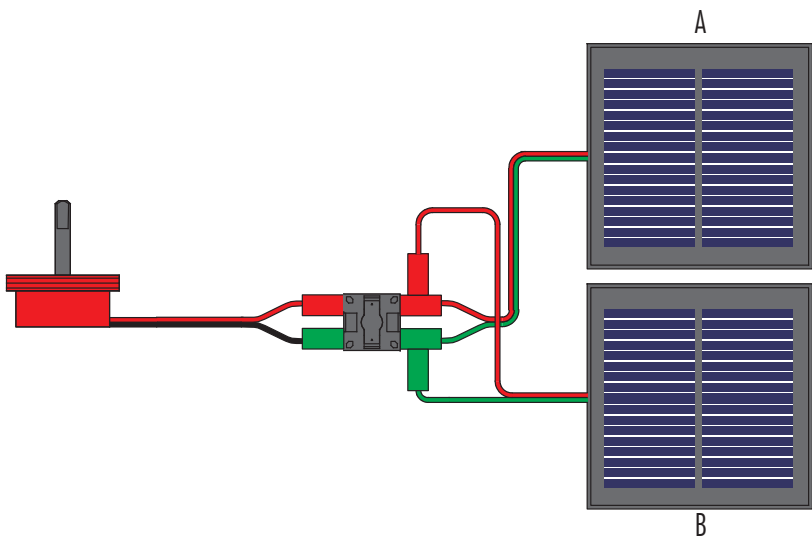
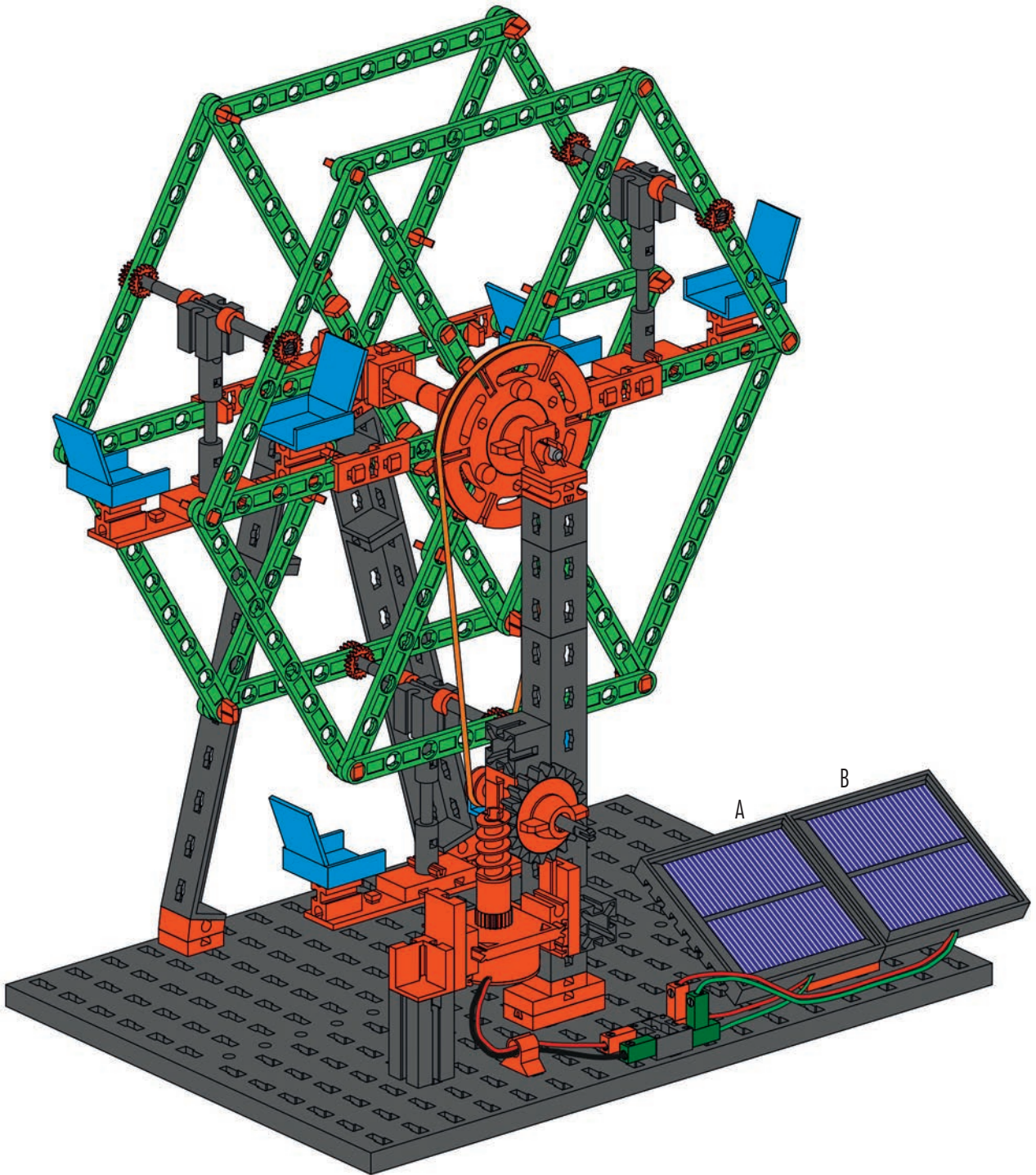


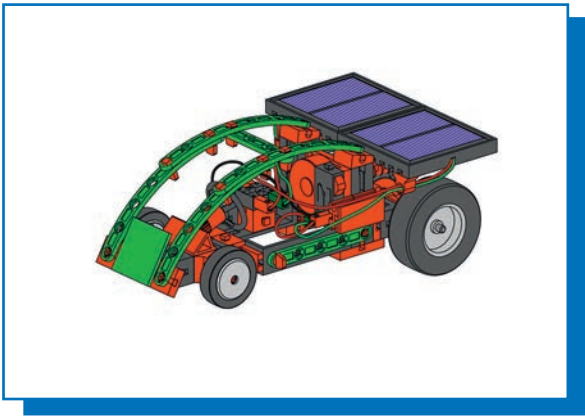
17

- 1x [Orange Motor]
- 1x [Orange Pin]
- 3x [Orange Pin]
- 1x [Orange 1x2 Technic Brick]
- 1x [Orange Pin]
- 1x [Orange 1x2 Technic Brick]

14

16

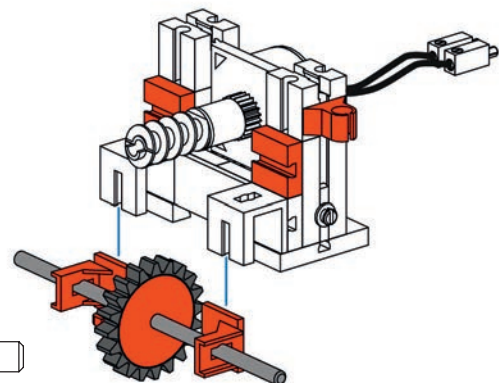
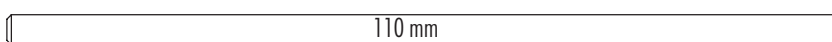
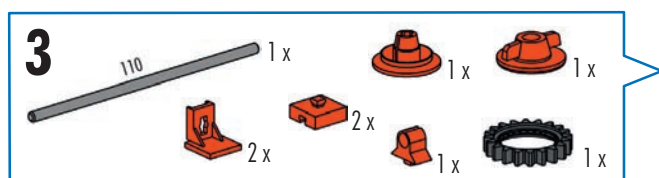
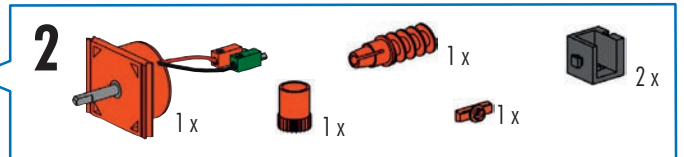
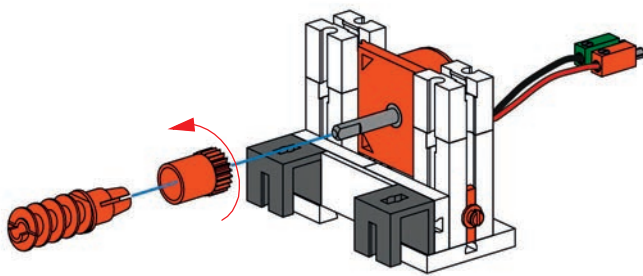
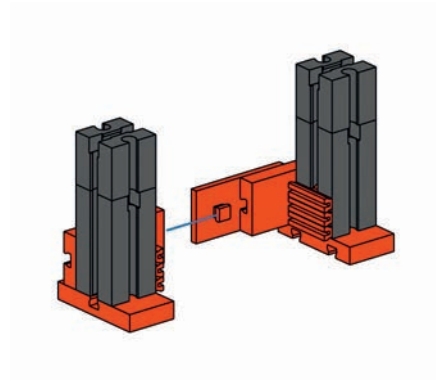
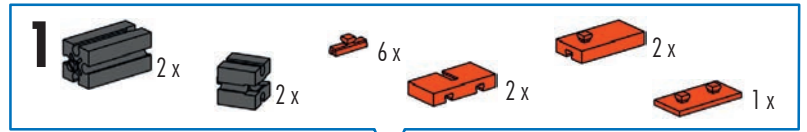


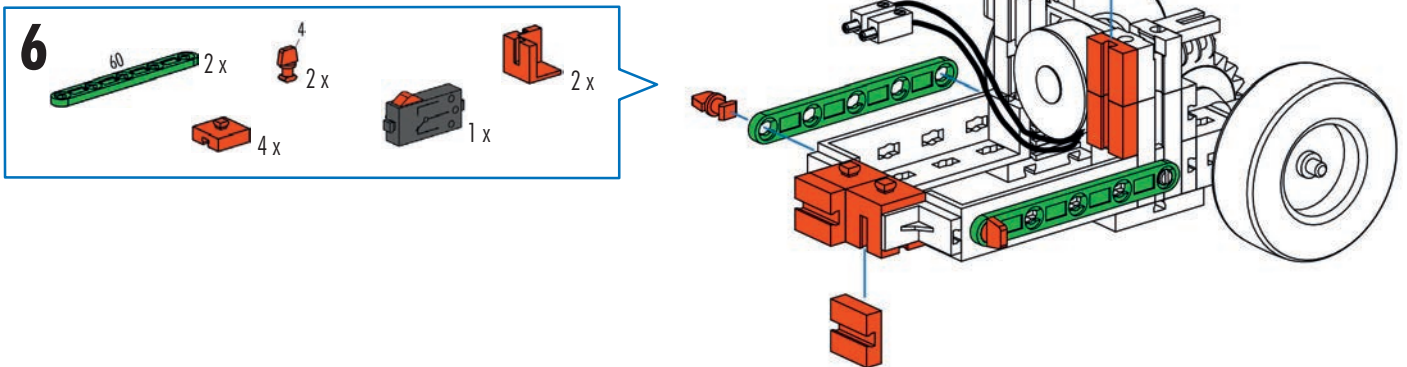
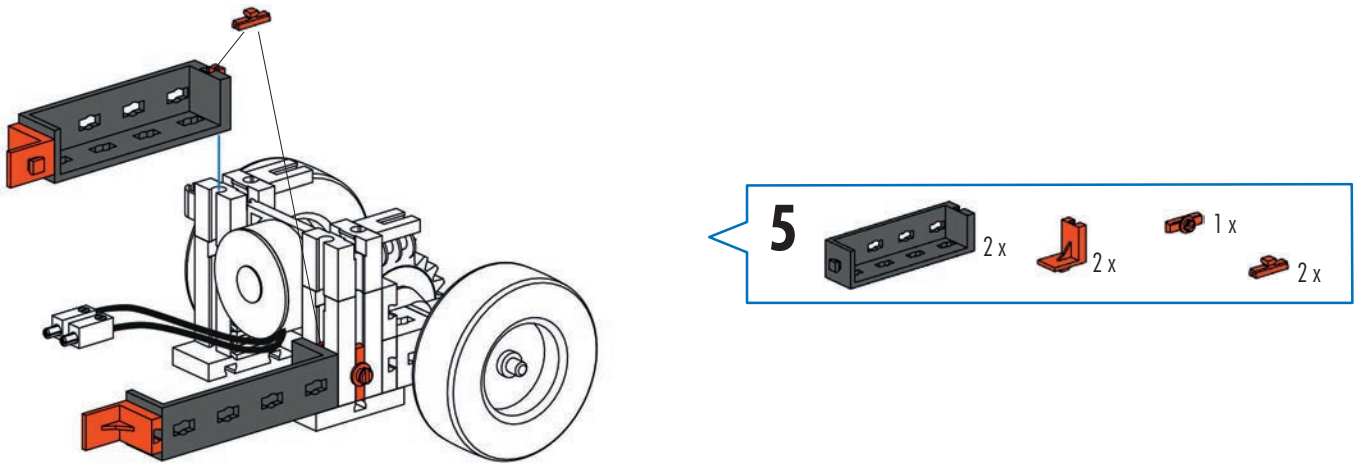
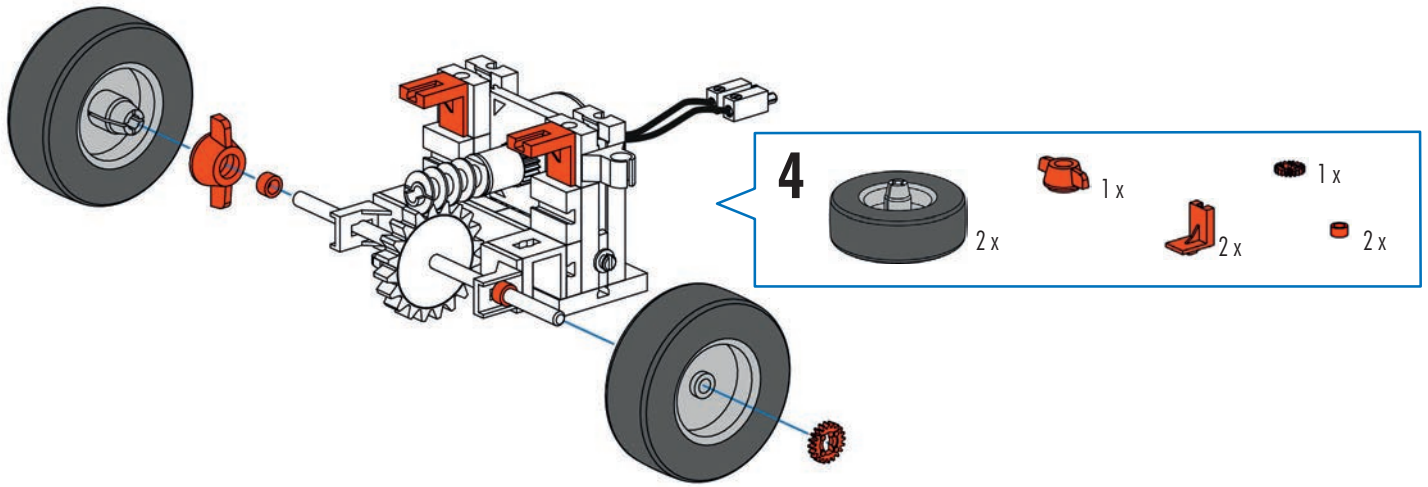


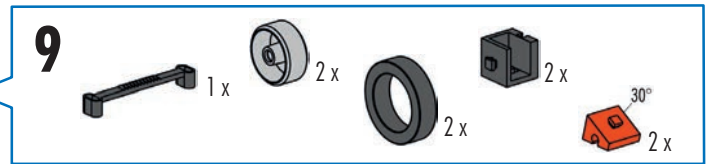
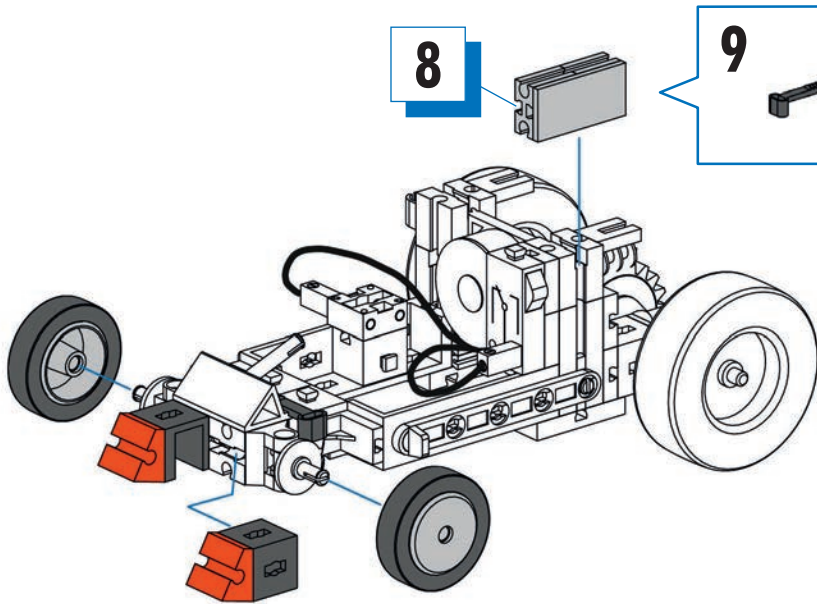
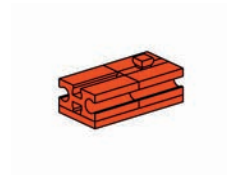
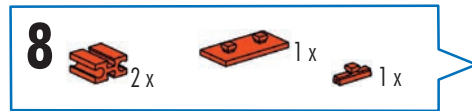
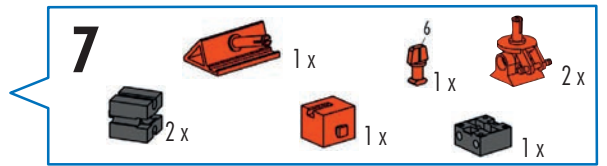
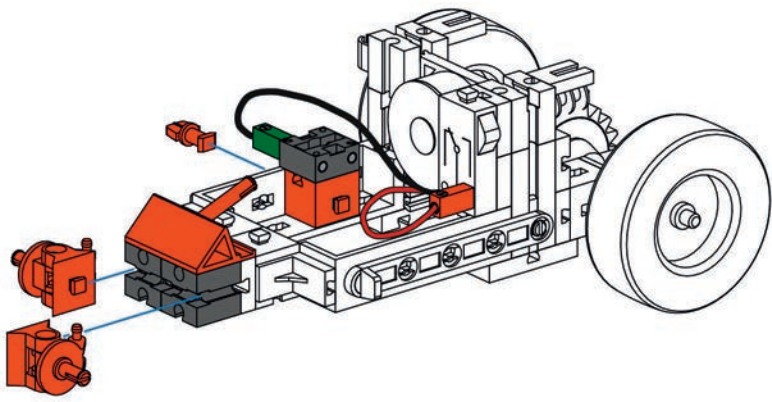
Solarfahrzeug
Solar vehicle
Véhicule solaire

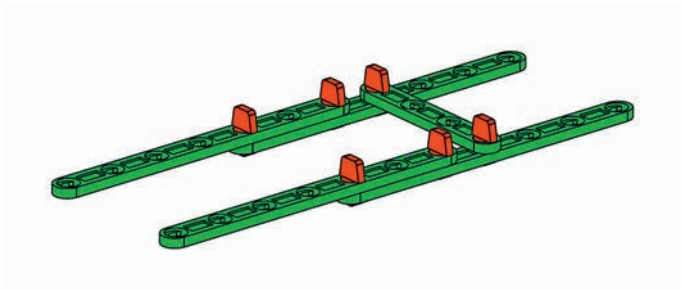
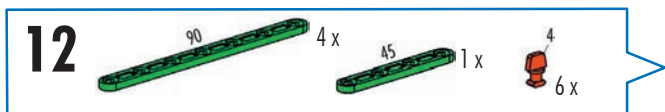
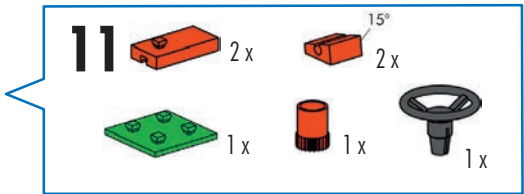
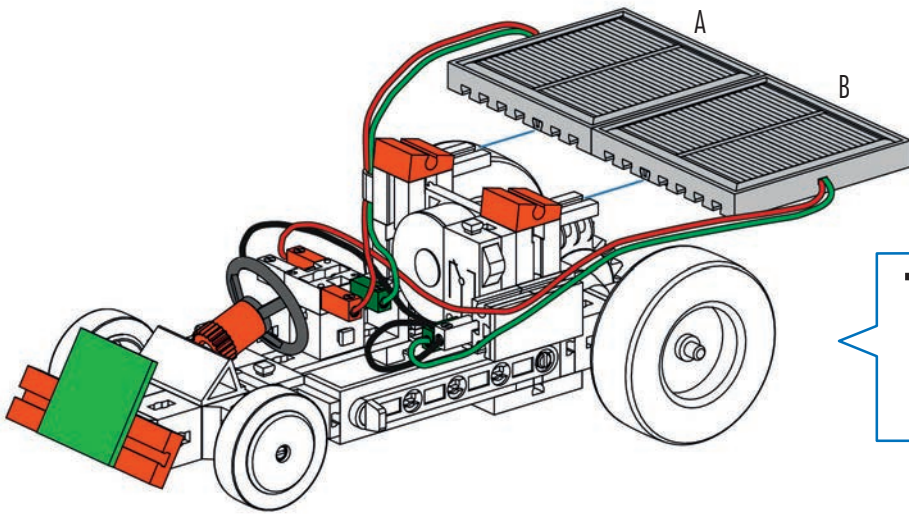
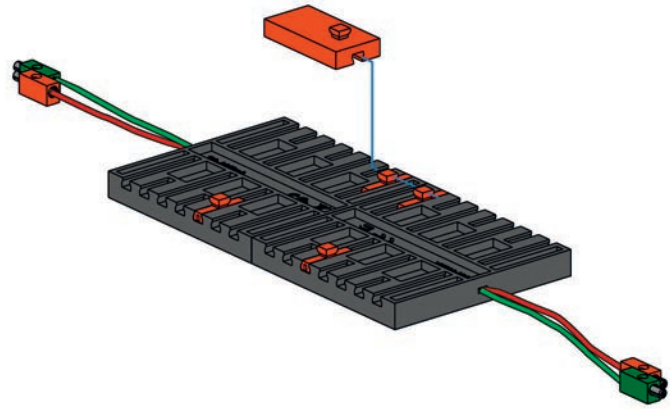
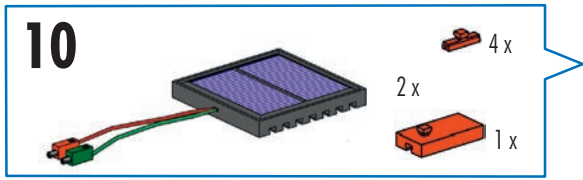
Voertuig op
zonne-energie
Vehículo solar
Veículo solar

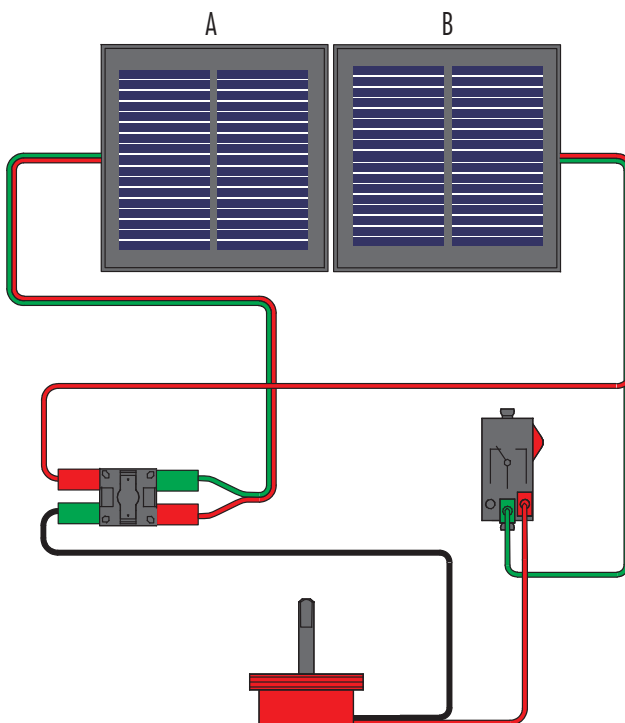
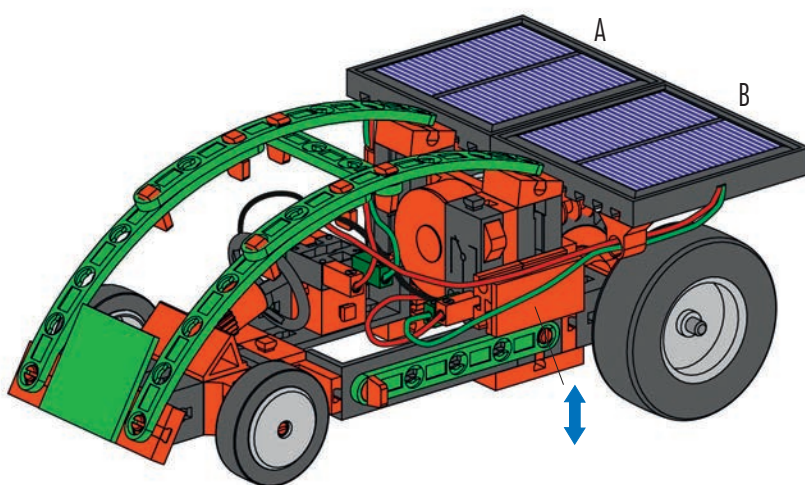
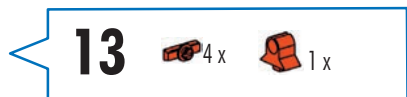
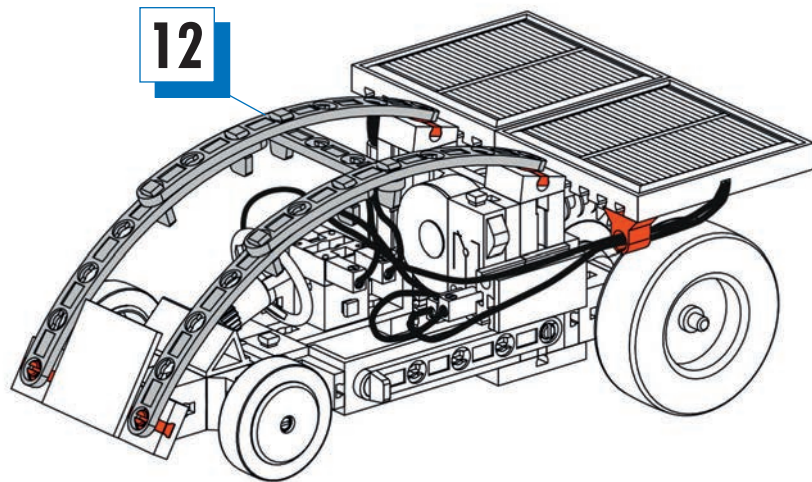
Veicolo ad energia solare
Электромобиль с
солнечными батареями
太阳能电动车









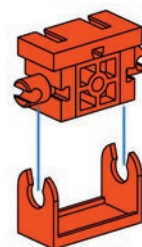
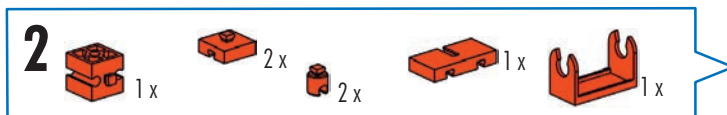
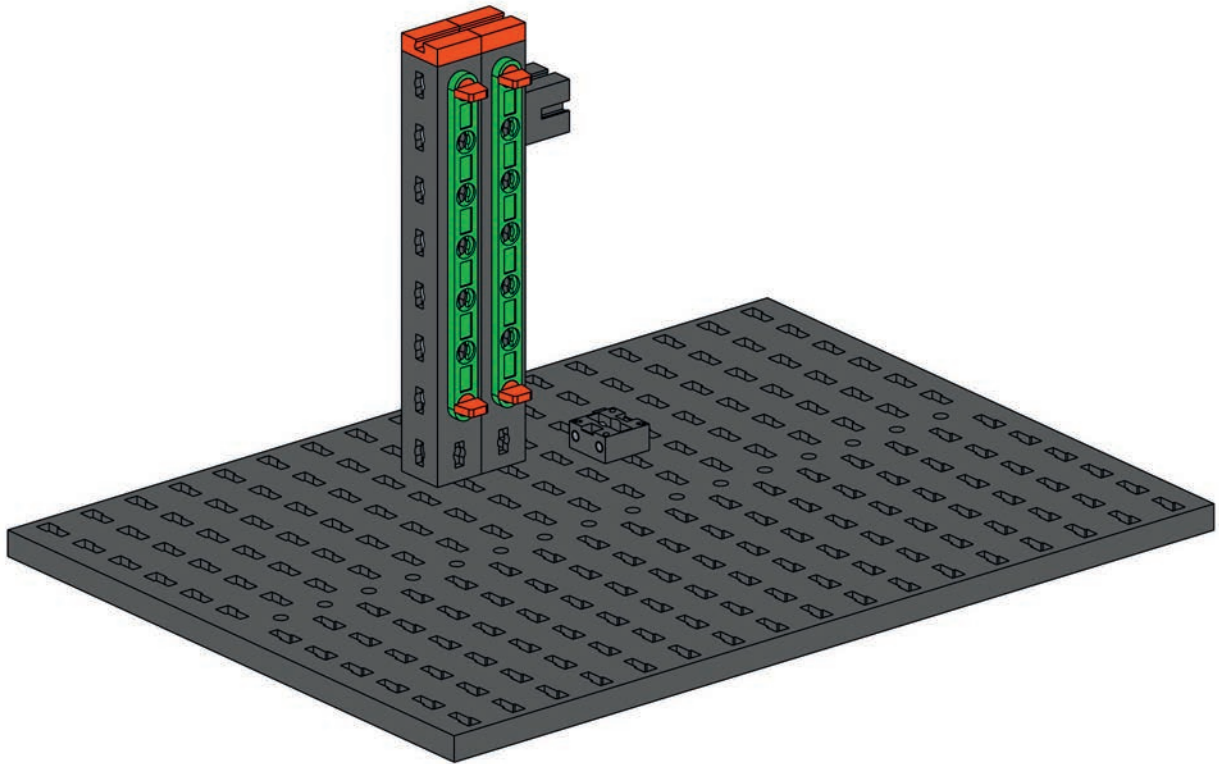
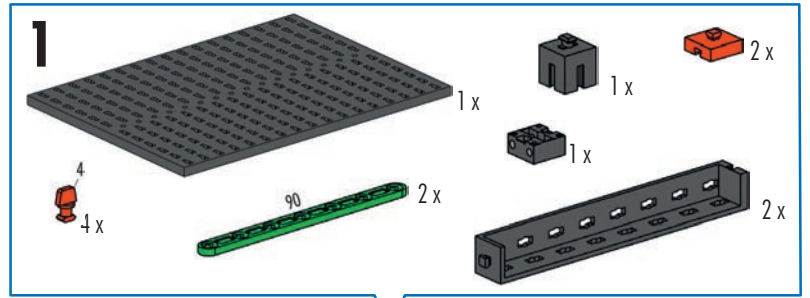


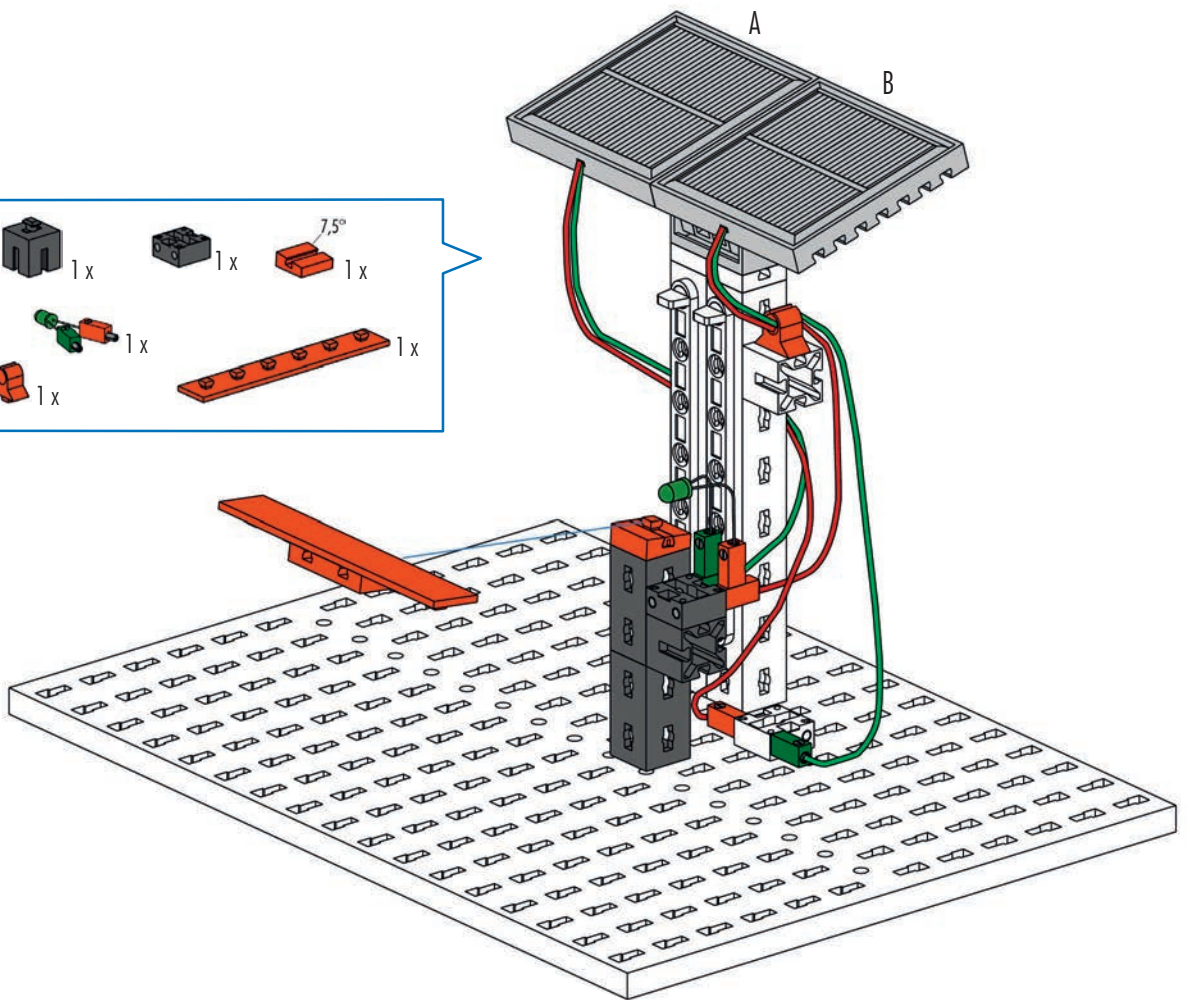
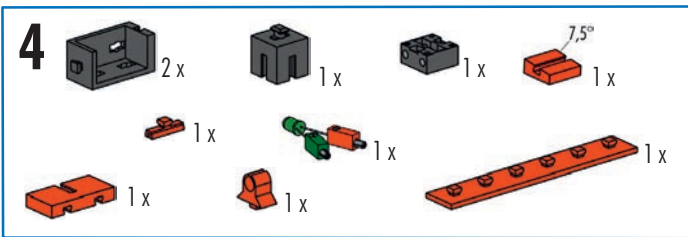
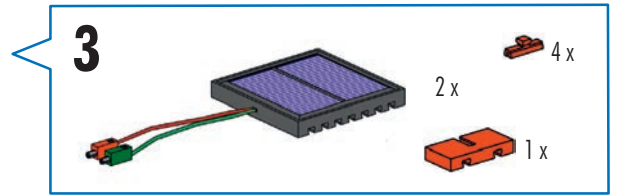
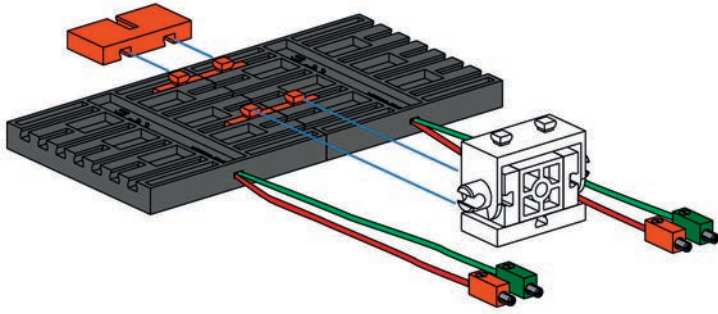


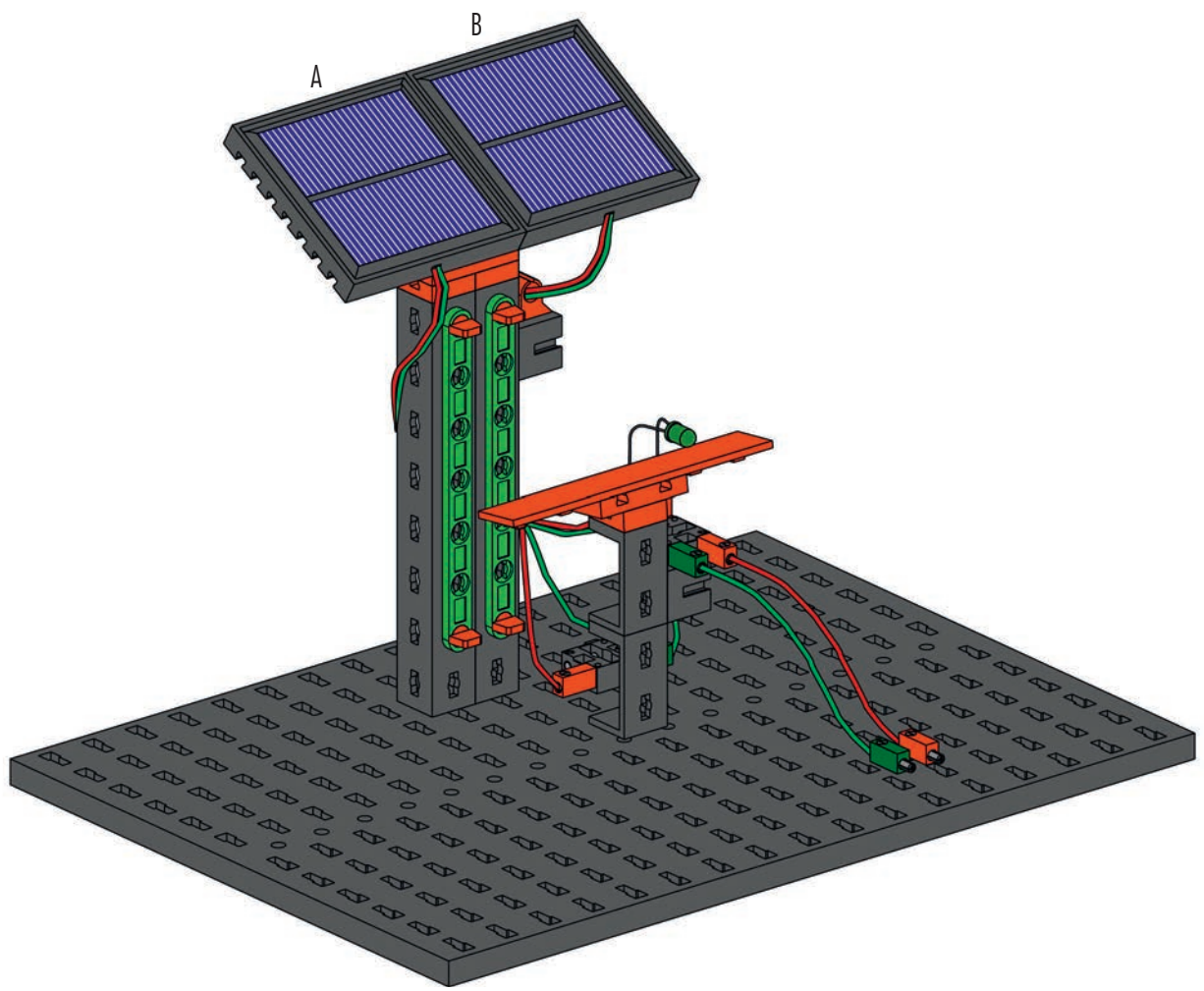
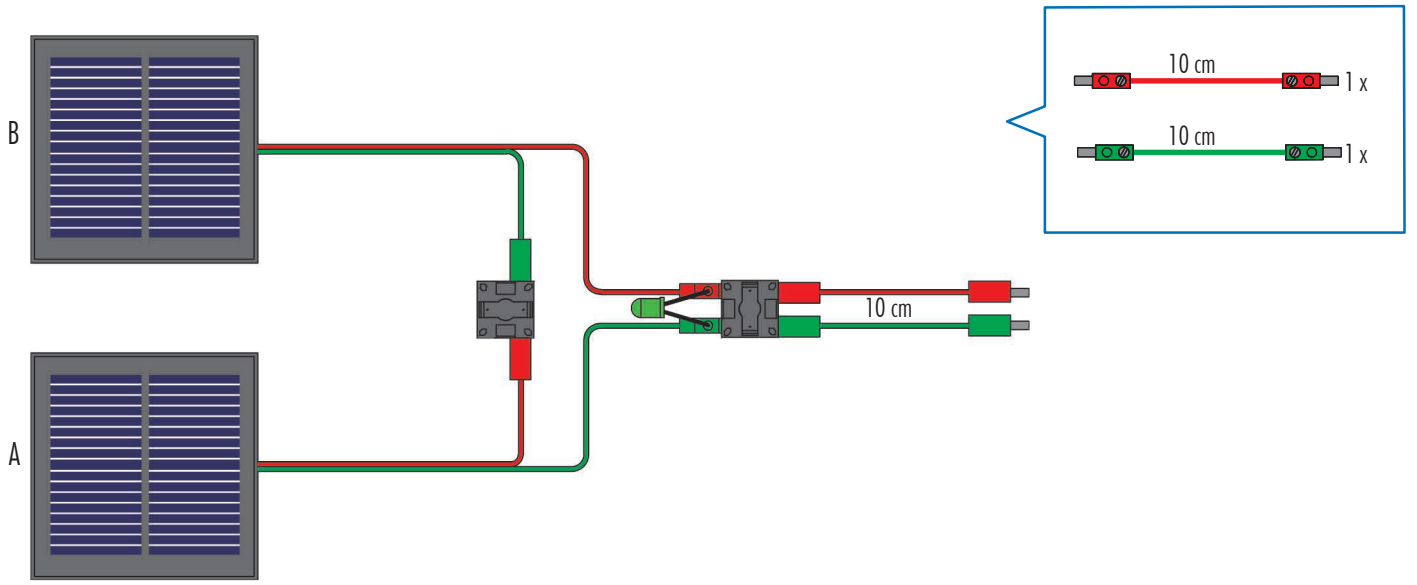
Solartankstelle
Solar charging station
Panneau solaire photovoltaïque

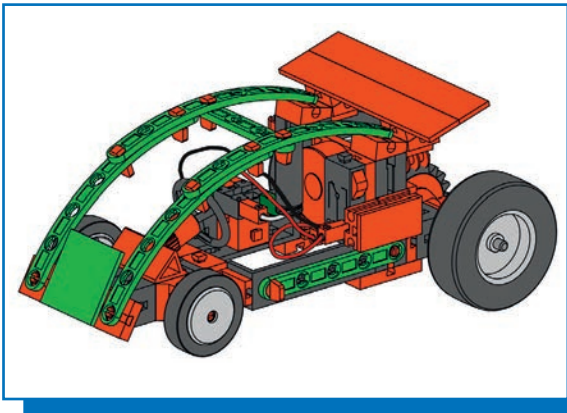
Oplaadstation op zonne-energie
Estación de servicio solar
Posto de abastecimento solar

Pannelo solare fotovoltaico
Солнечная зарядная станция
电动车和太阳能充电站









Elektrofahrzeug
Electric vehicle
Véhicule électrique

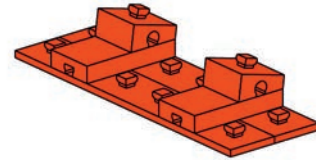
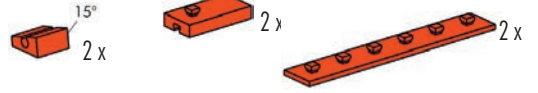
Elektrisch voertuig
Vehículo eléctrico
Veículo elétrico

Veicolo elettrico
Электромобиль
电动车

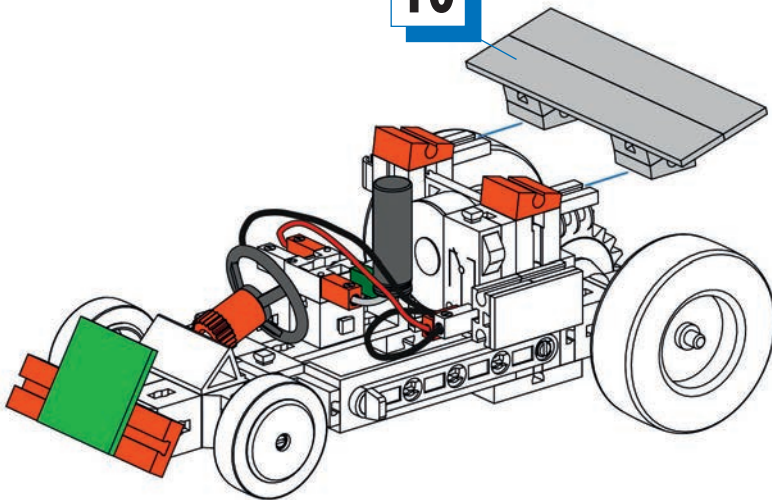
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Seite 48
Page 48
Page 48
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Página 48
Pagina 48
Página 48
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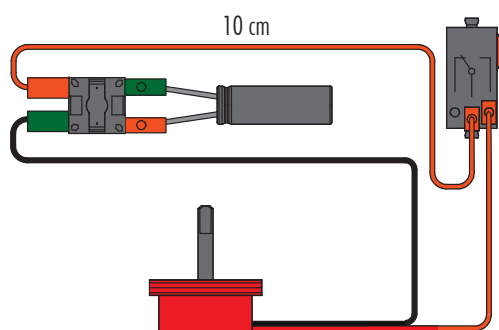
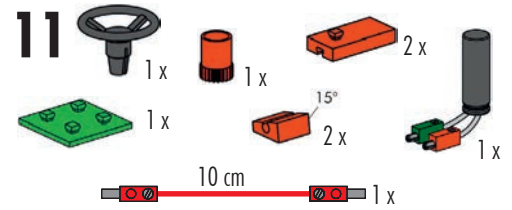
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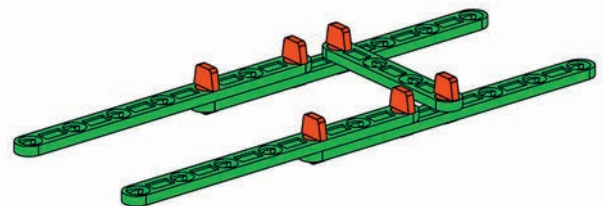
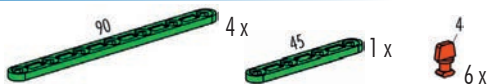
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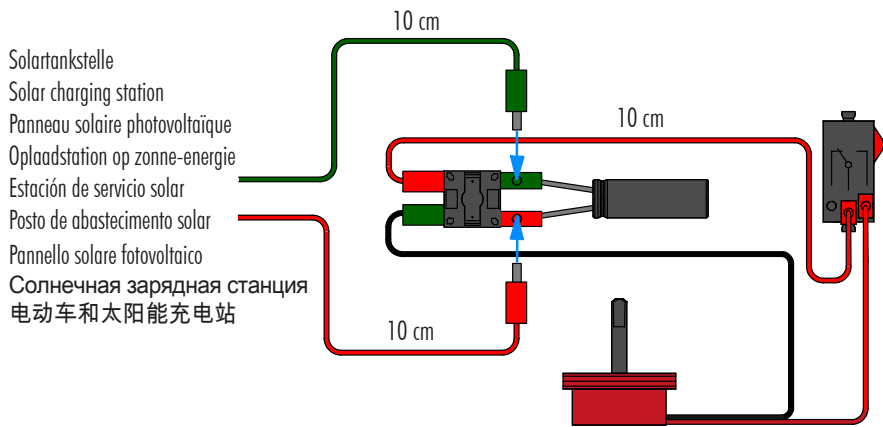
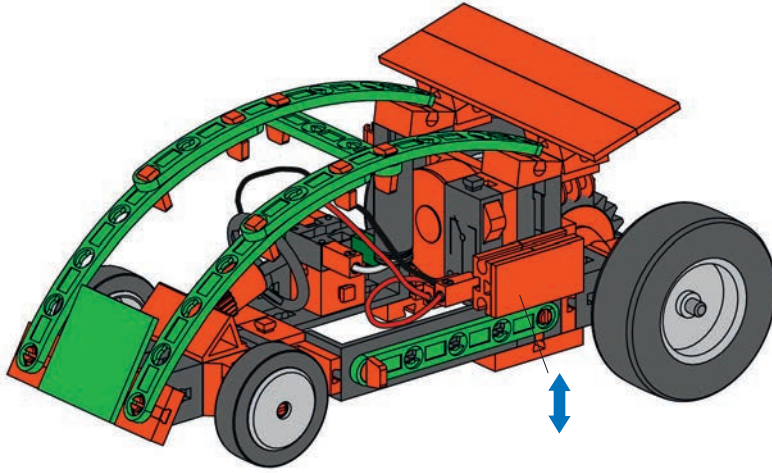
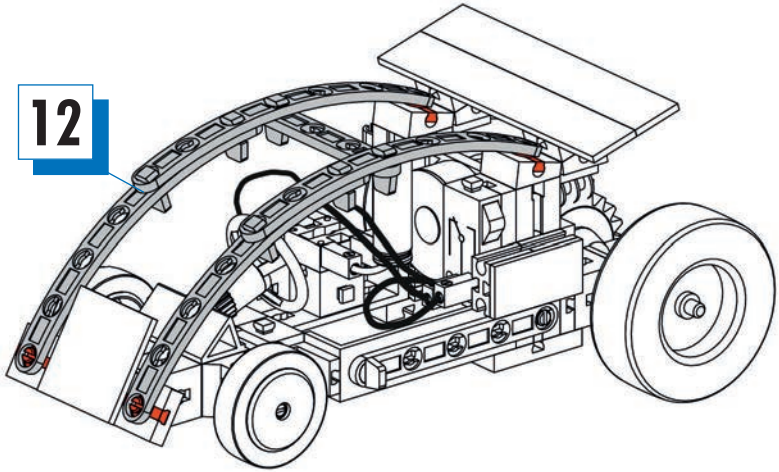


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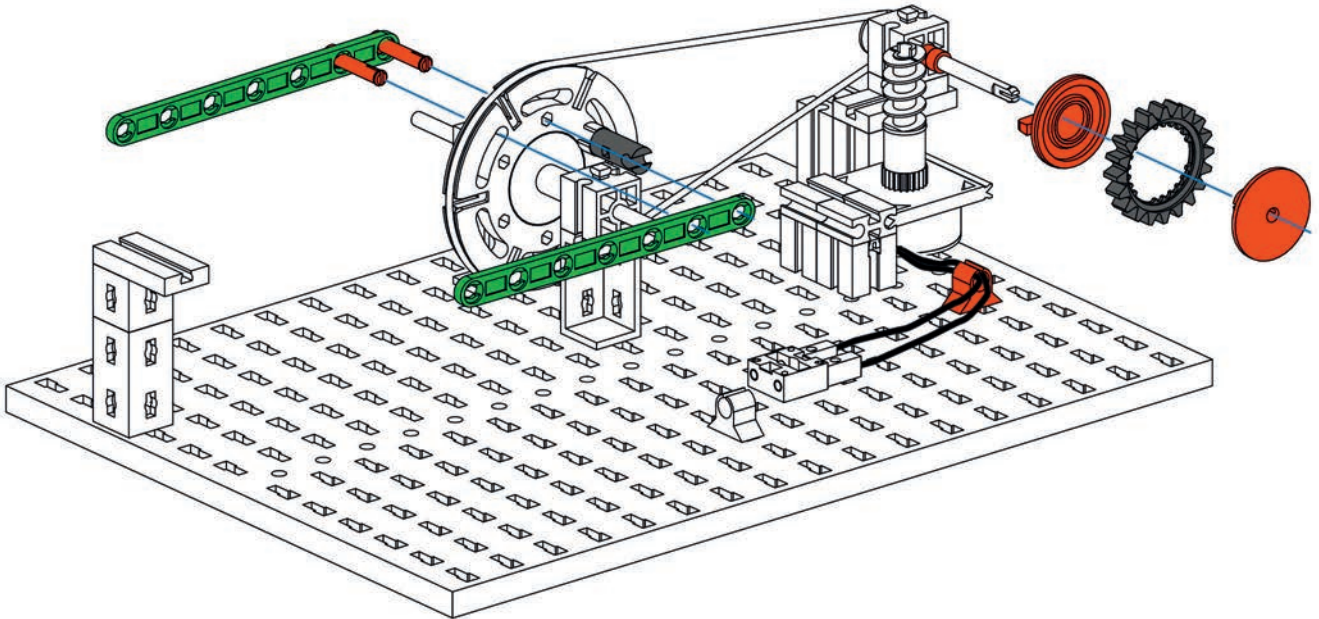


13  4 x

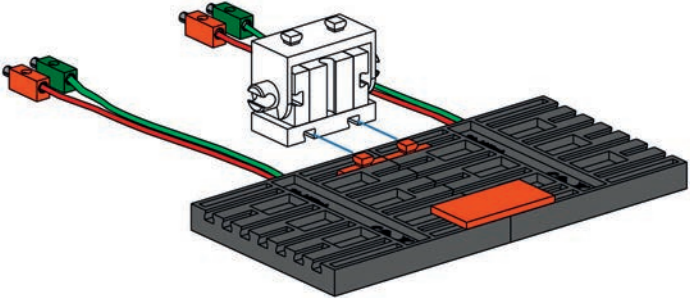
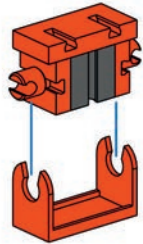
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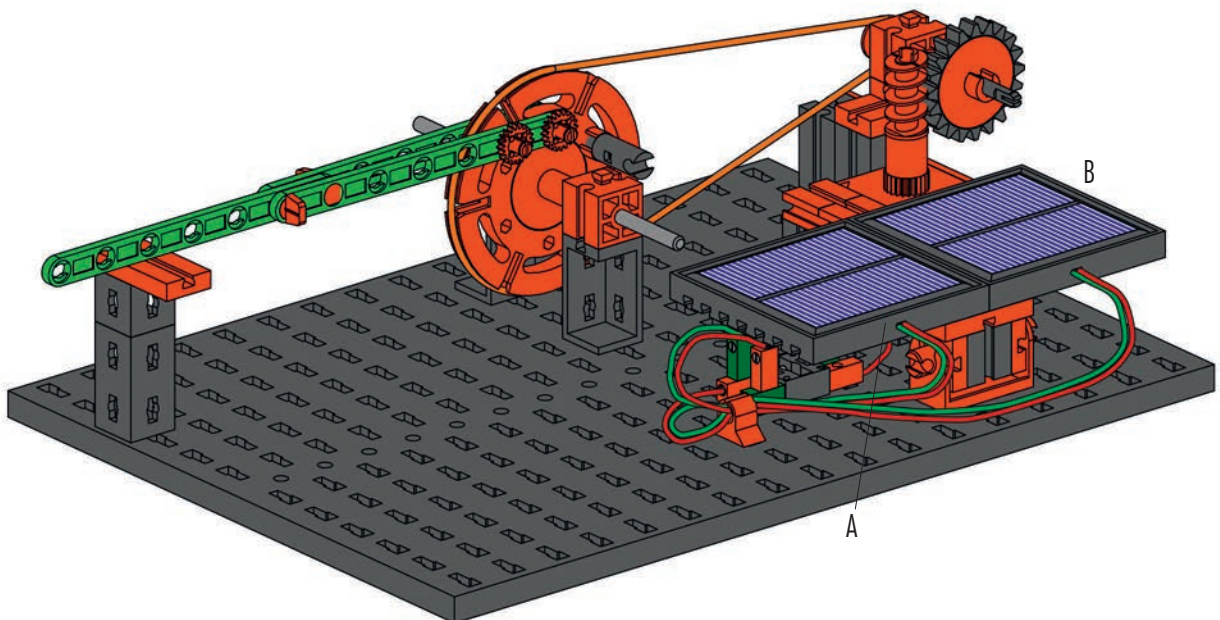
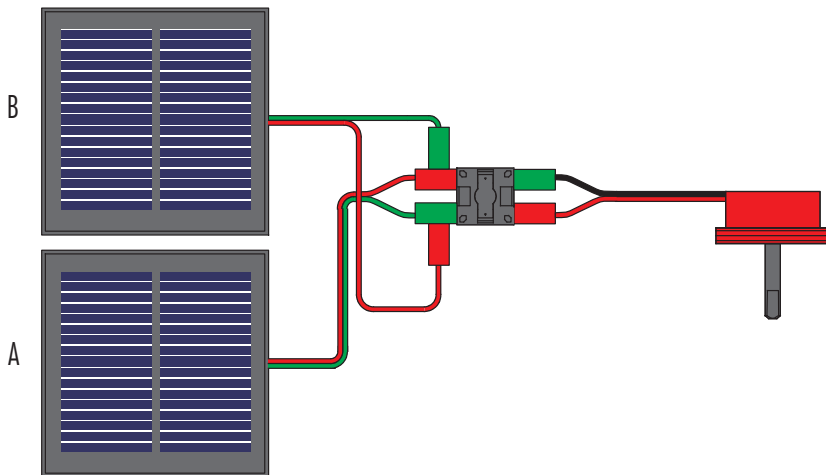
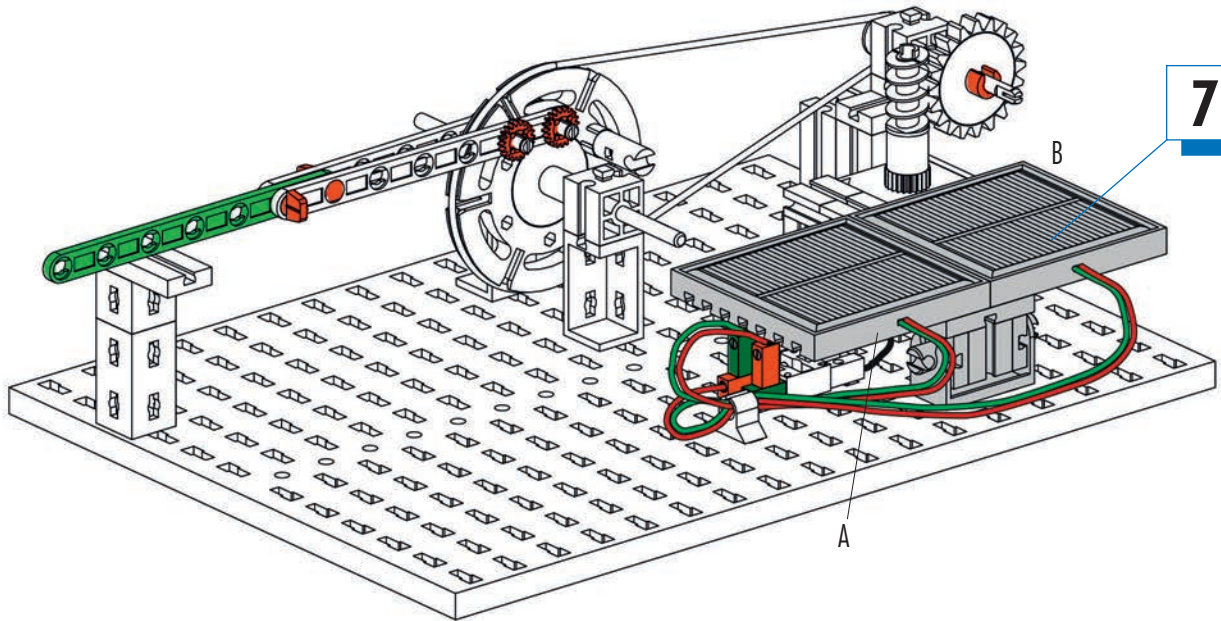
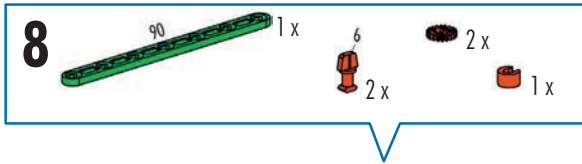
- 5**
- 1 x (orange) bush
 - 1 x (orange) bush
 - 1 x (black) gear
 - 2 x (orange) pin
 - 1 x (orange) bush
 - 1 x (grey) axle
 - 2 x (green) Technic beam 90
 - 2 x (orange) pin

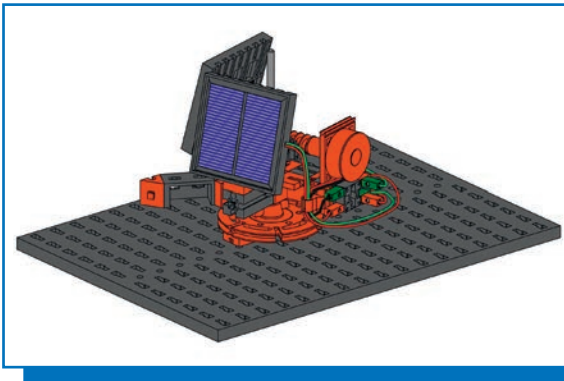


- 6**
- 1 x (grey) Technic brick 1
 - 2 x (orange) Technic brick 1
 - 2 x (orange) Technic pin
 - 1 x (orange) Technic brick 1
 - 1 x (orange) Technic bracket



- 7**
- 2 x (grey) Technic brick 1
 - 2 x (orange) Technic pin
 - 1 x (orange) Technic brick 1

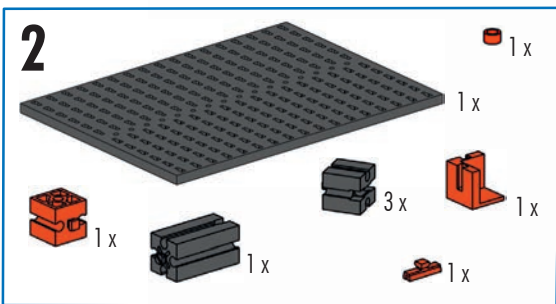
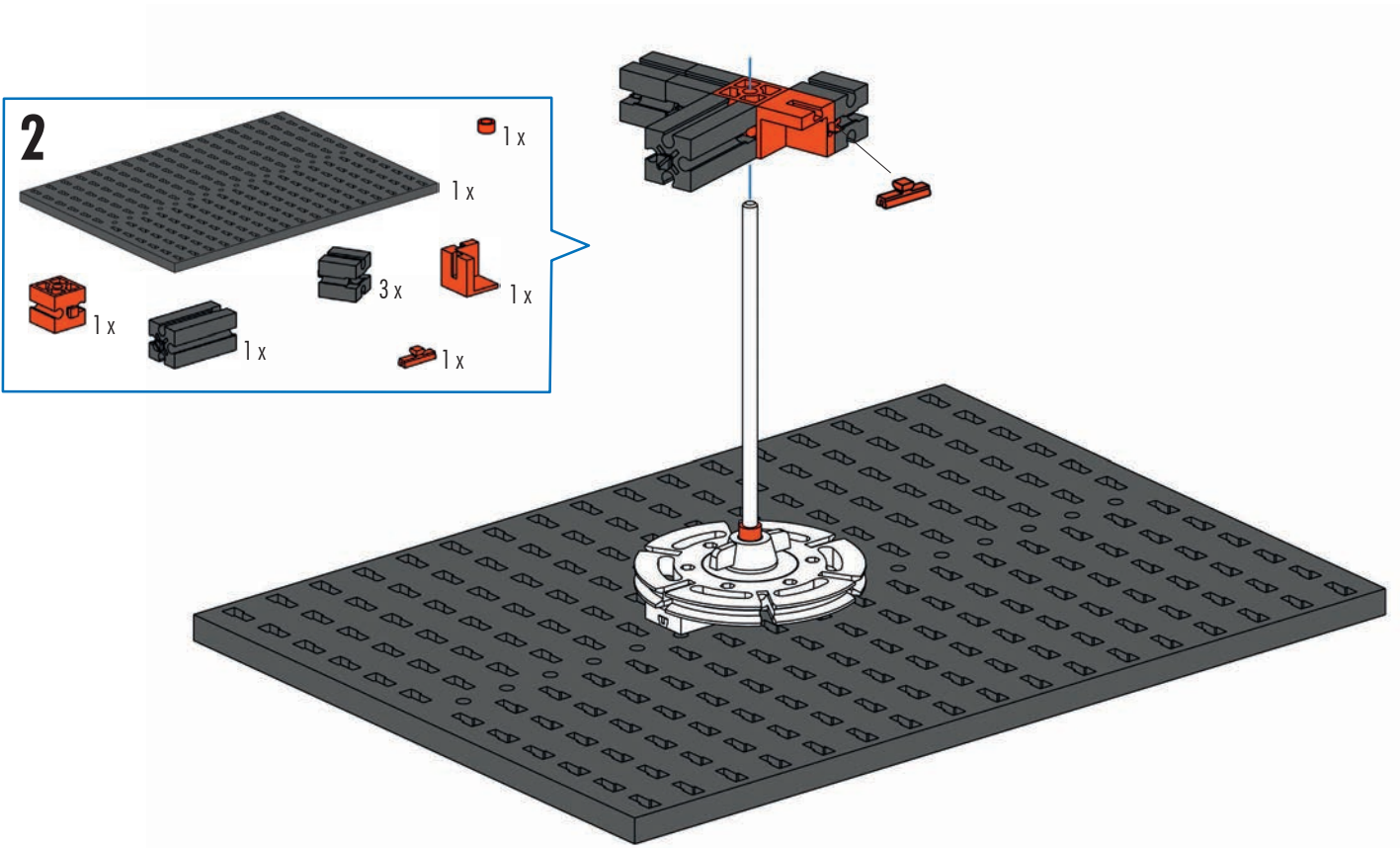
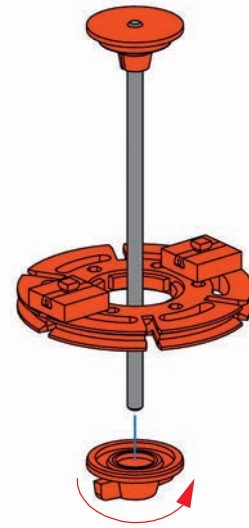
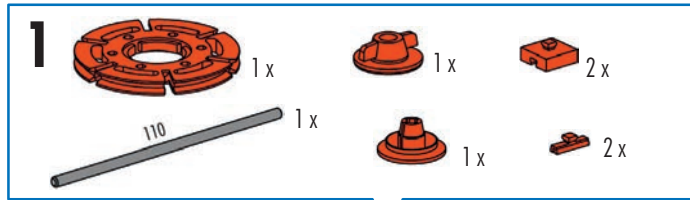


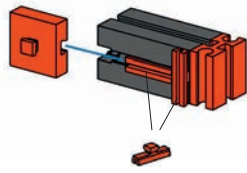


Solarnachführung
Solar tracking
Orientation du
panneau solaire

Zonvolgsystem
Seguimiento solar
Traçamento solar

Orientamento pannelli
solari
 Слежение за солнцем
 太阳跟踪仪



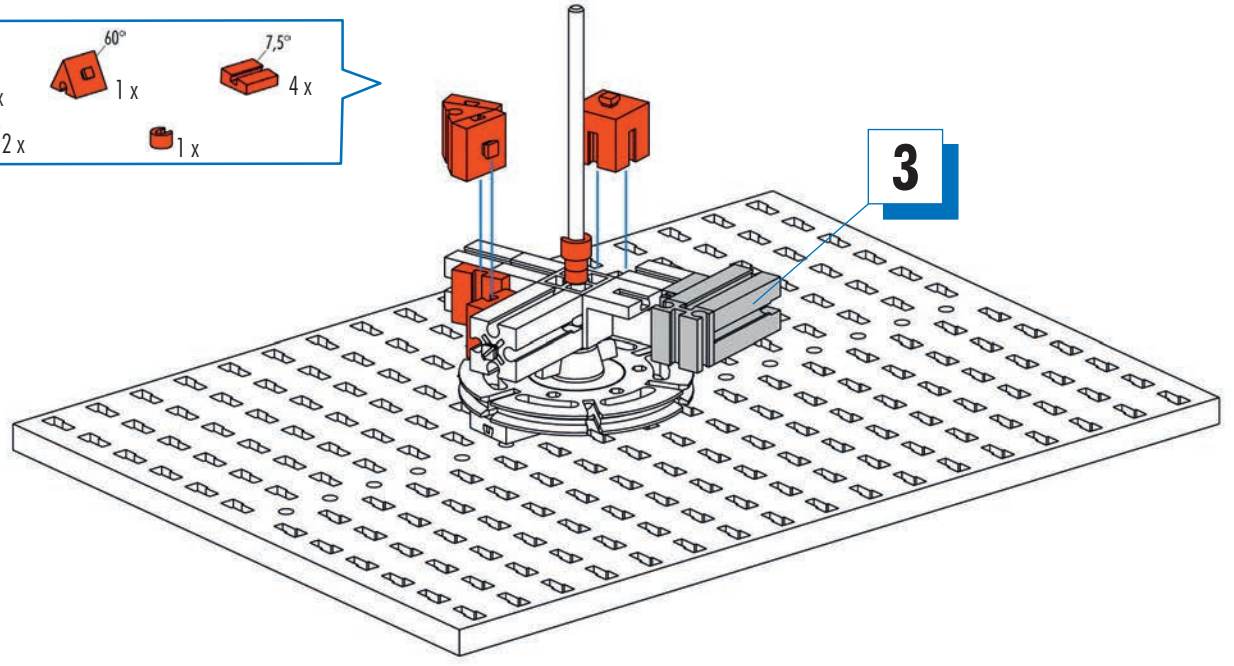


3

- 1 x [Grey Motor]
- 1 x [Orange Bracket]
- 2 x [Orange Pin]
- 1 x [Orange Connector]

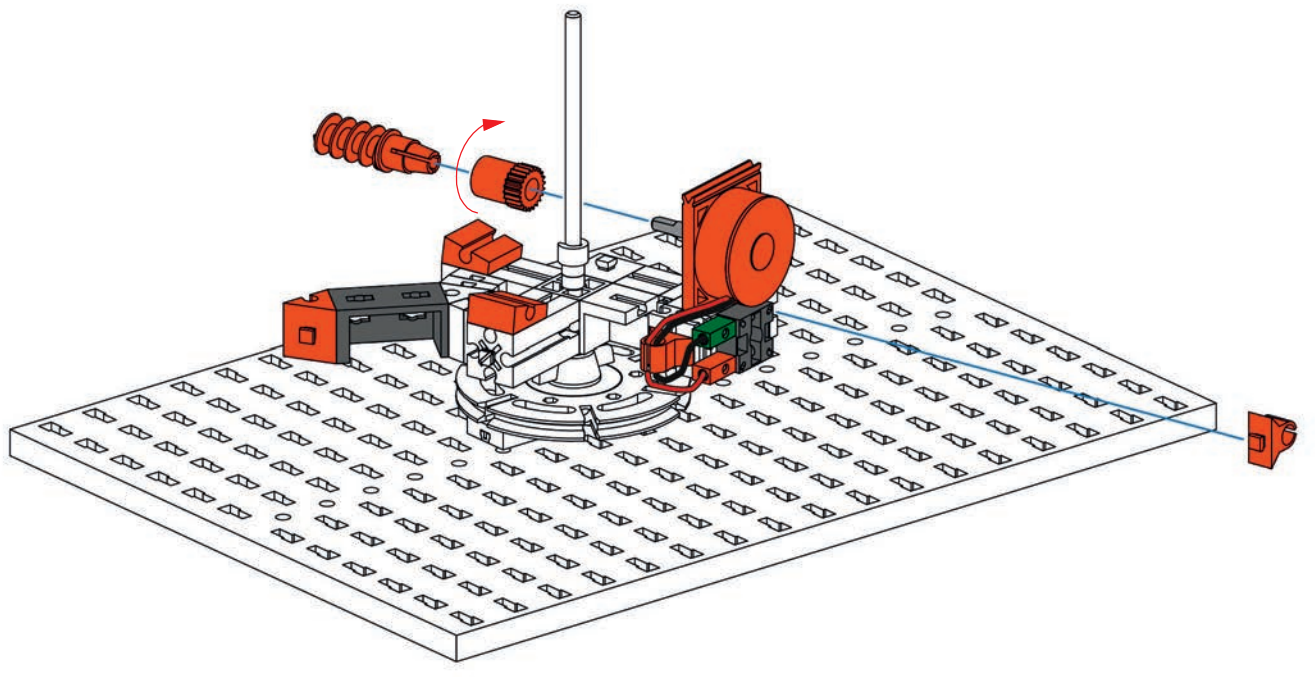
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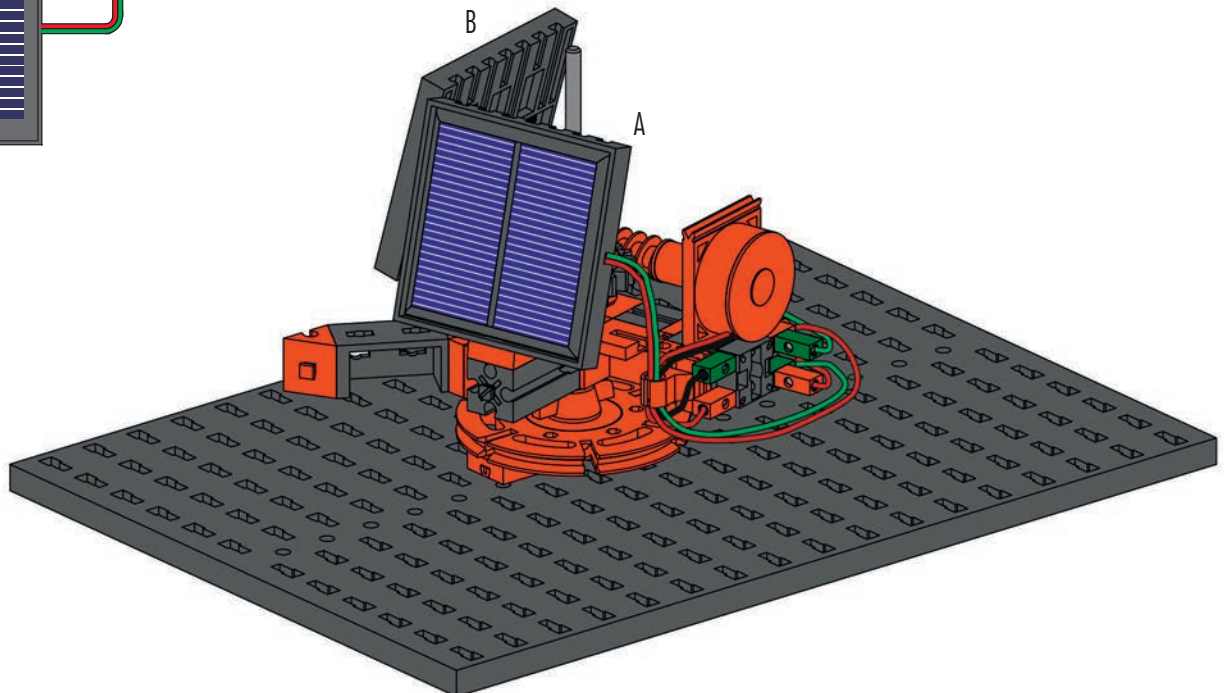
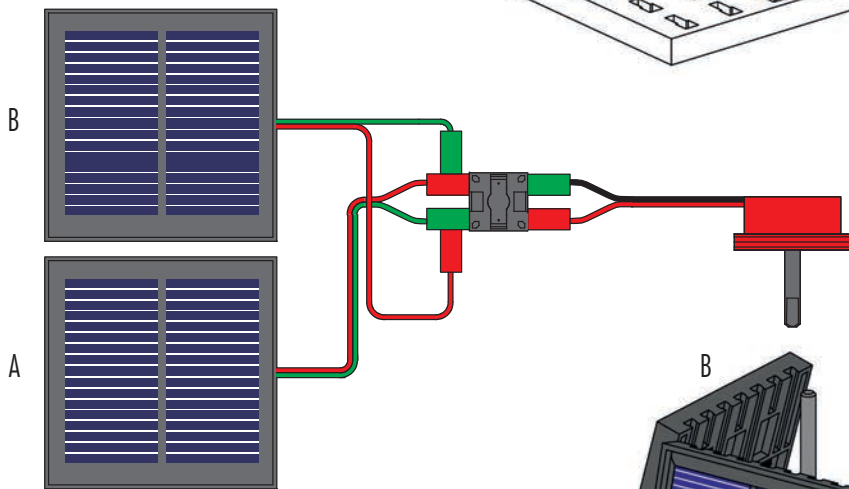
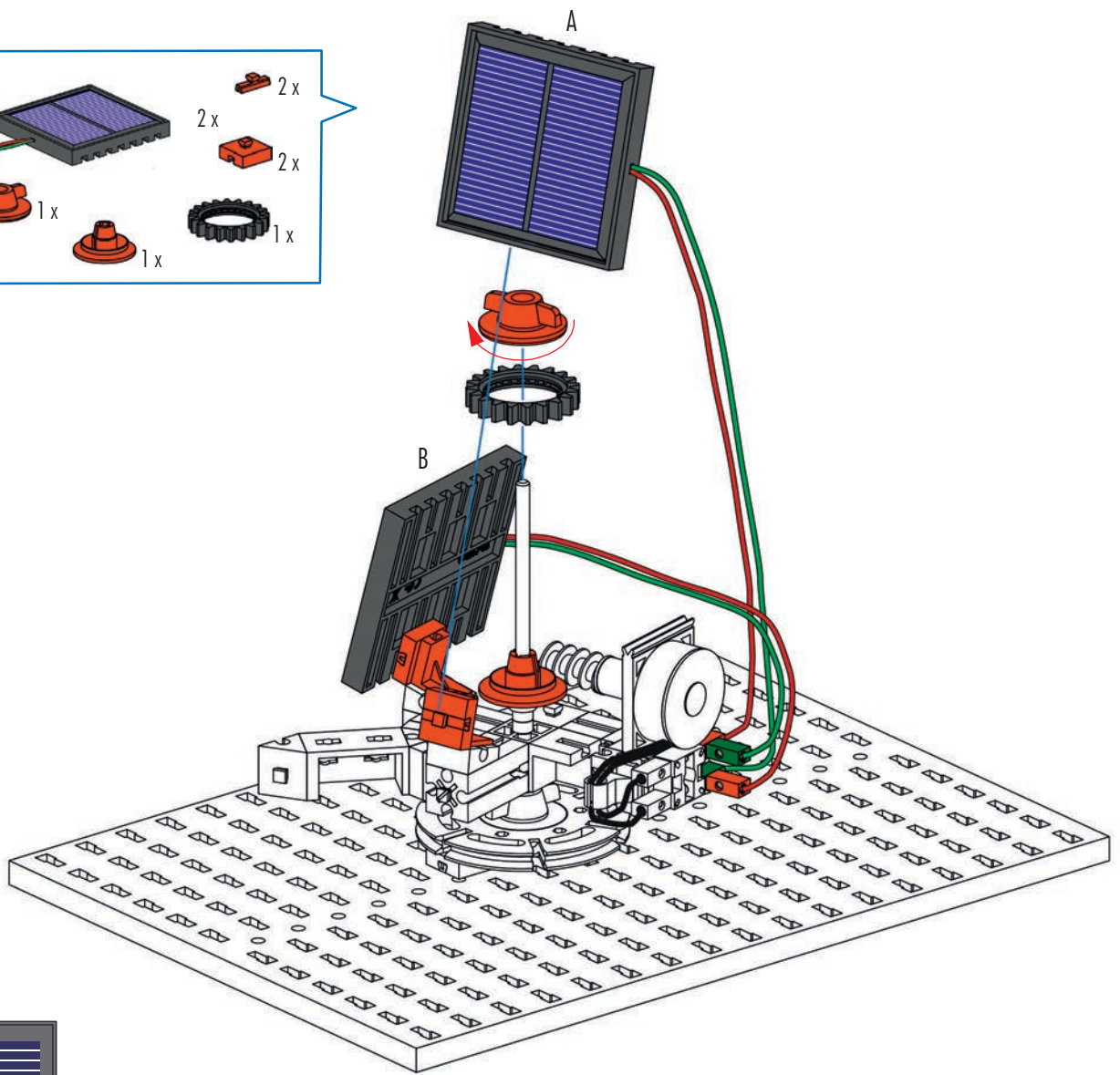
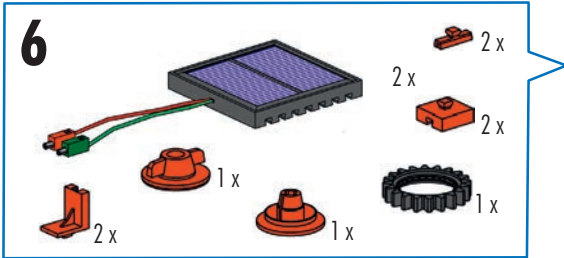
- 1 x [Orange L-Bracket]
- 2 x [Orange Pin]
- 1 x [Orange 60° Wedge]
- 1 x [Orange 7.5° Wedge]
- 4 x [Orange 7.5° Wedge]



5

- 1 x [Grey Motor]
- 1 x [Orange 60° Wedge]
- 2 x [Orange 7.5° Wedge]
- 1 x [Orange Motor Mount]
- 1 x [Grey Motor]
- 2 x [Orange 15° Wedge]
- 1 x [Orange Pin]
- 1 x [Orange Screw]





4



2x



3x



1x



1x



1x



3x



2x



2x



4

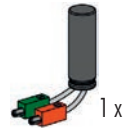
4x



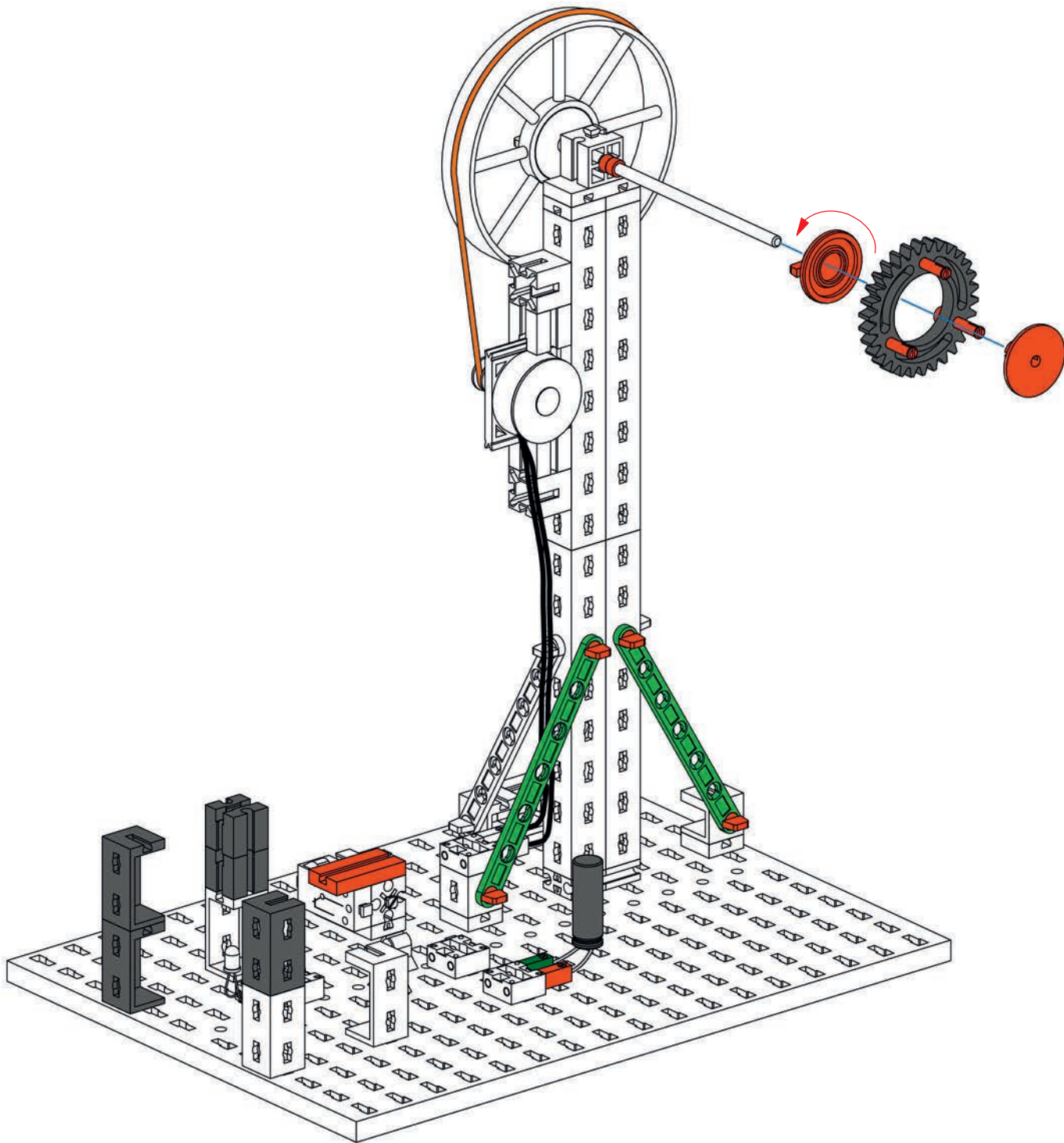
1x



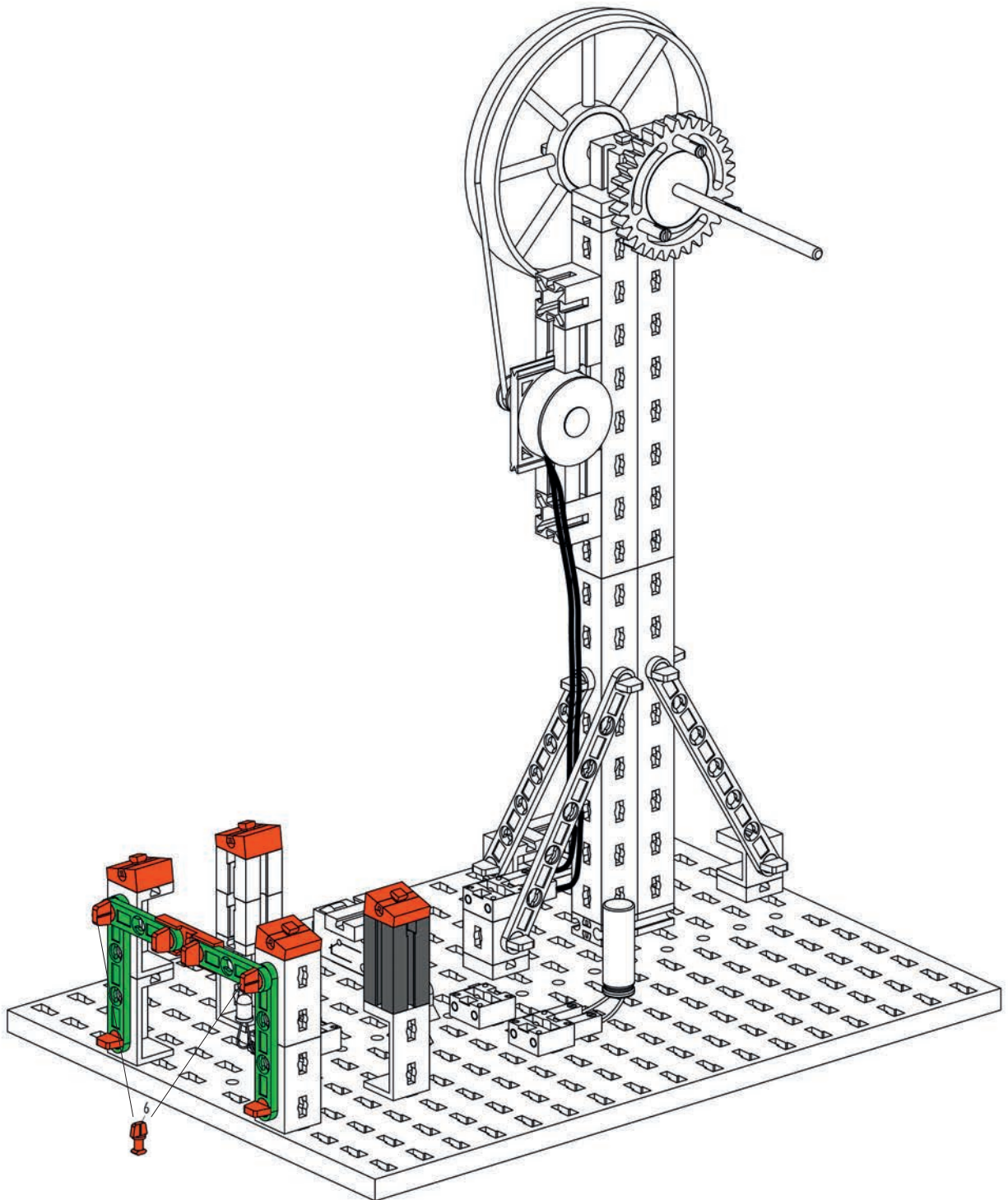
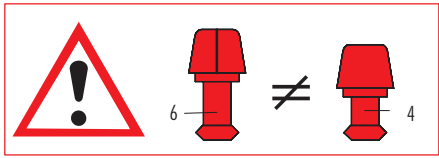
1x

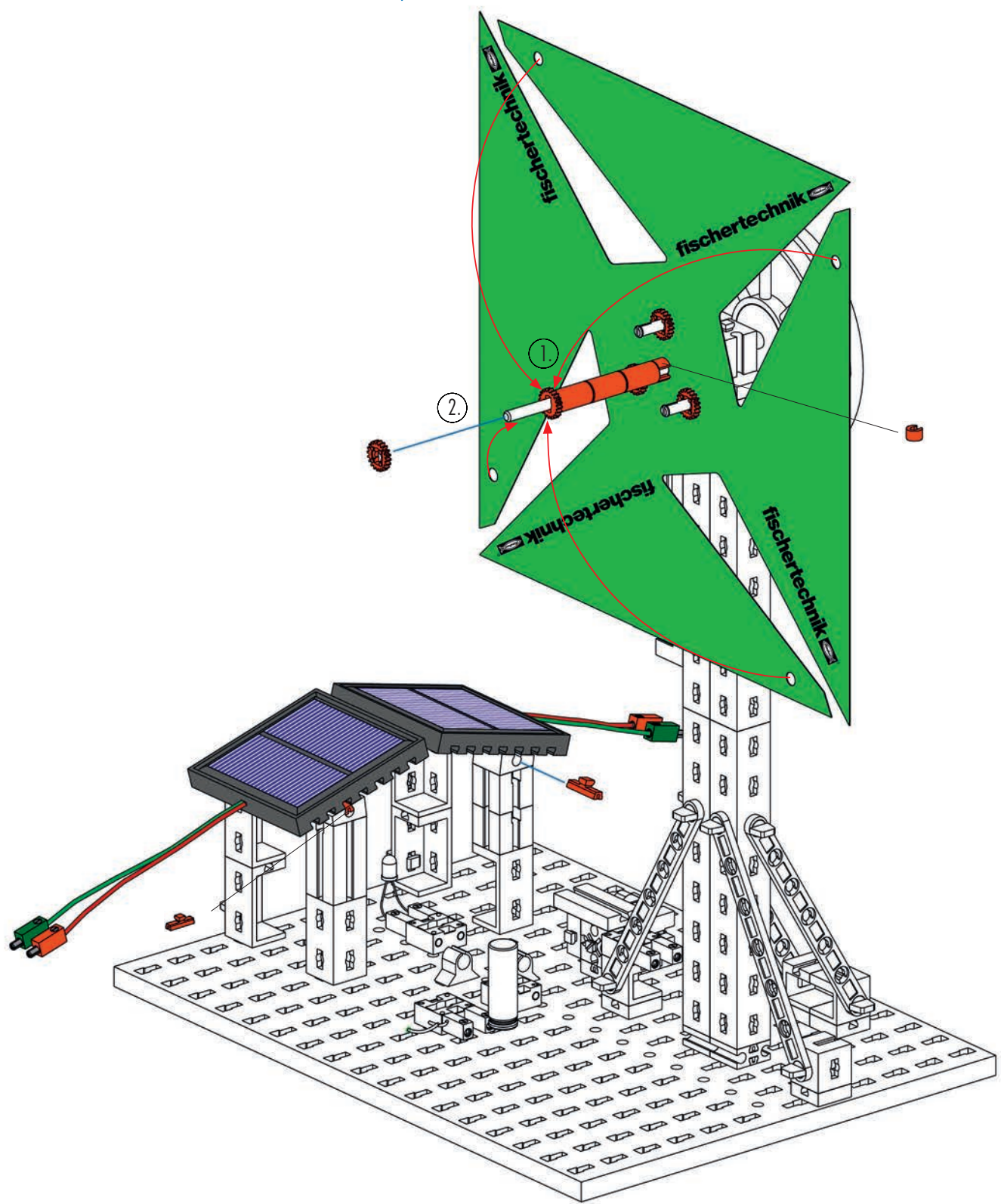
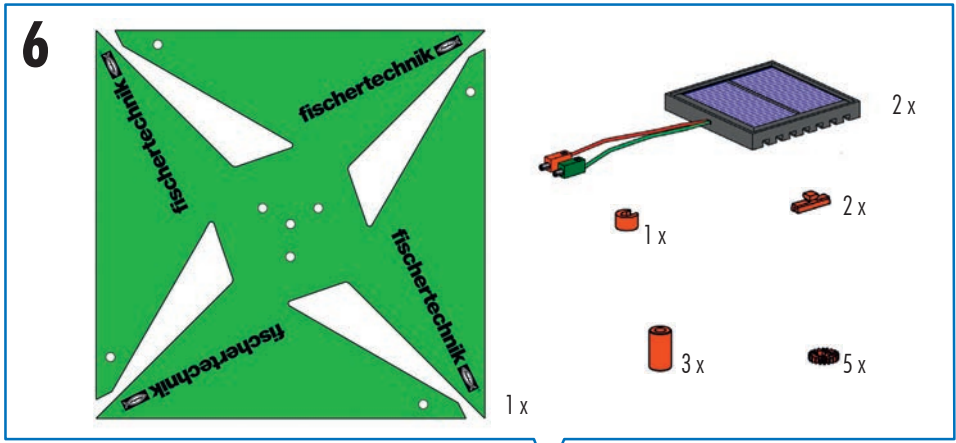


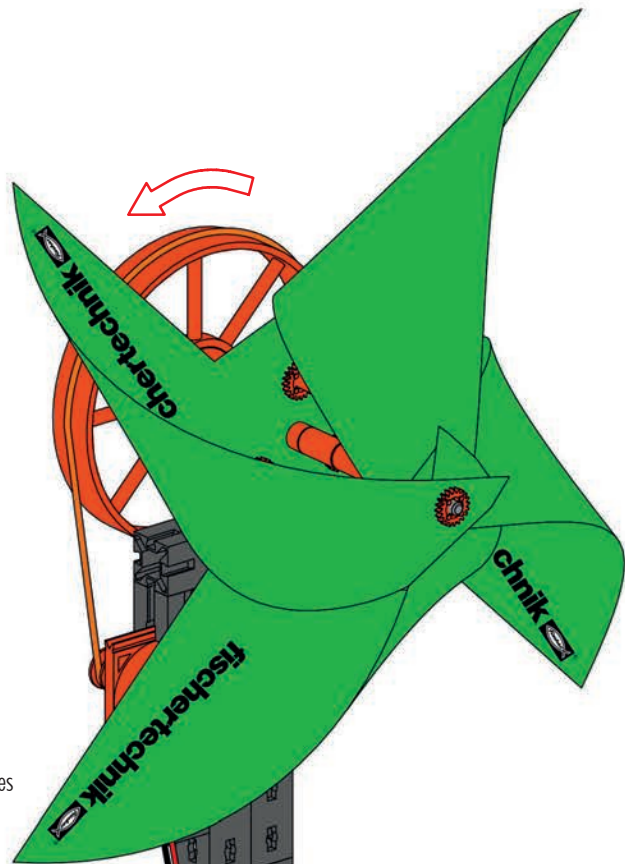
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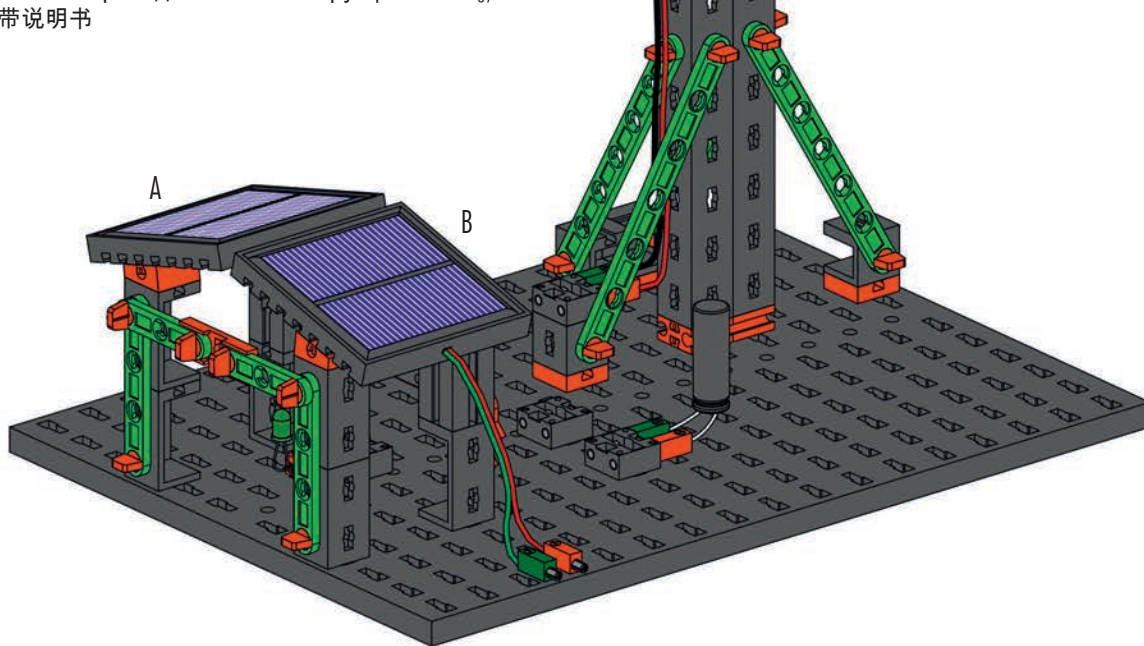
- 5
- 1 x [Grey 1x3 Technic Brick]
 - 2 x [Green 1x30 Technic Beam]
 - 2 x [Green 1x45 Technic Beam]
 - 1 x [Red 1x3 Technic Brick]
 - 4 x [Red 1x3 Technic Brick with 15° angle]
 - 4 x [Red 1/2 Pin]
 - 2 x [Red 1/2 Pin]
 - 2 x [Red 1x2 Technic Brick]







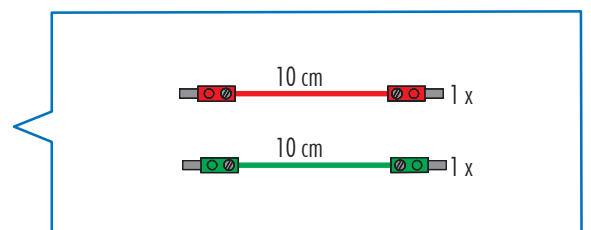
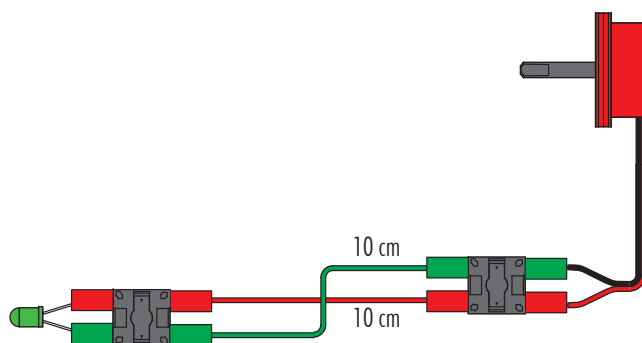
Aufgaben siehe Begleitheft Oeco Energy
 For information on tasks, refer to Oeco Energy activity booklet
 Voir le manuel d'accompagnement Oeco Energy en ce qui concerne les exercices
 Zie het begeleidend boekje Oeco Energy voor de taken
 Véase tarea en el cuaderno adjunto Oeco Energy
 Para tarefas ver o folheto Oeco Energy
 Per i compiti vedi Libretto delle attività Oeco Energy
 Задание см. в сопроводительной инструкции Oeco Energy
 任务见附带说明书



Aufgabe 1
Task 1
Exercice 1

Taak 1
Tarea 1
Tarefa 1

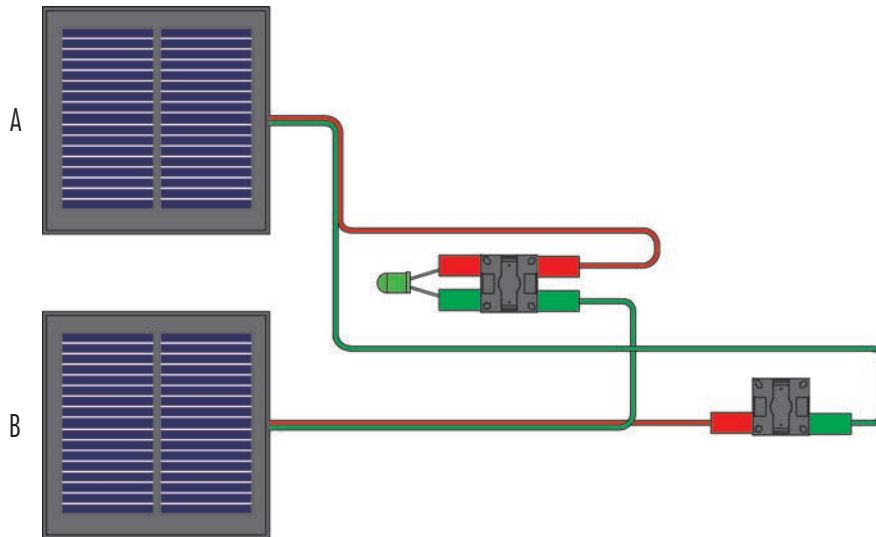
Compito 1
Задание 1
任务 1



Aufgabe 2
Task 2
Exercise 2

Taak 2
Tarea 2
Tarefa 2

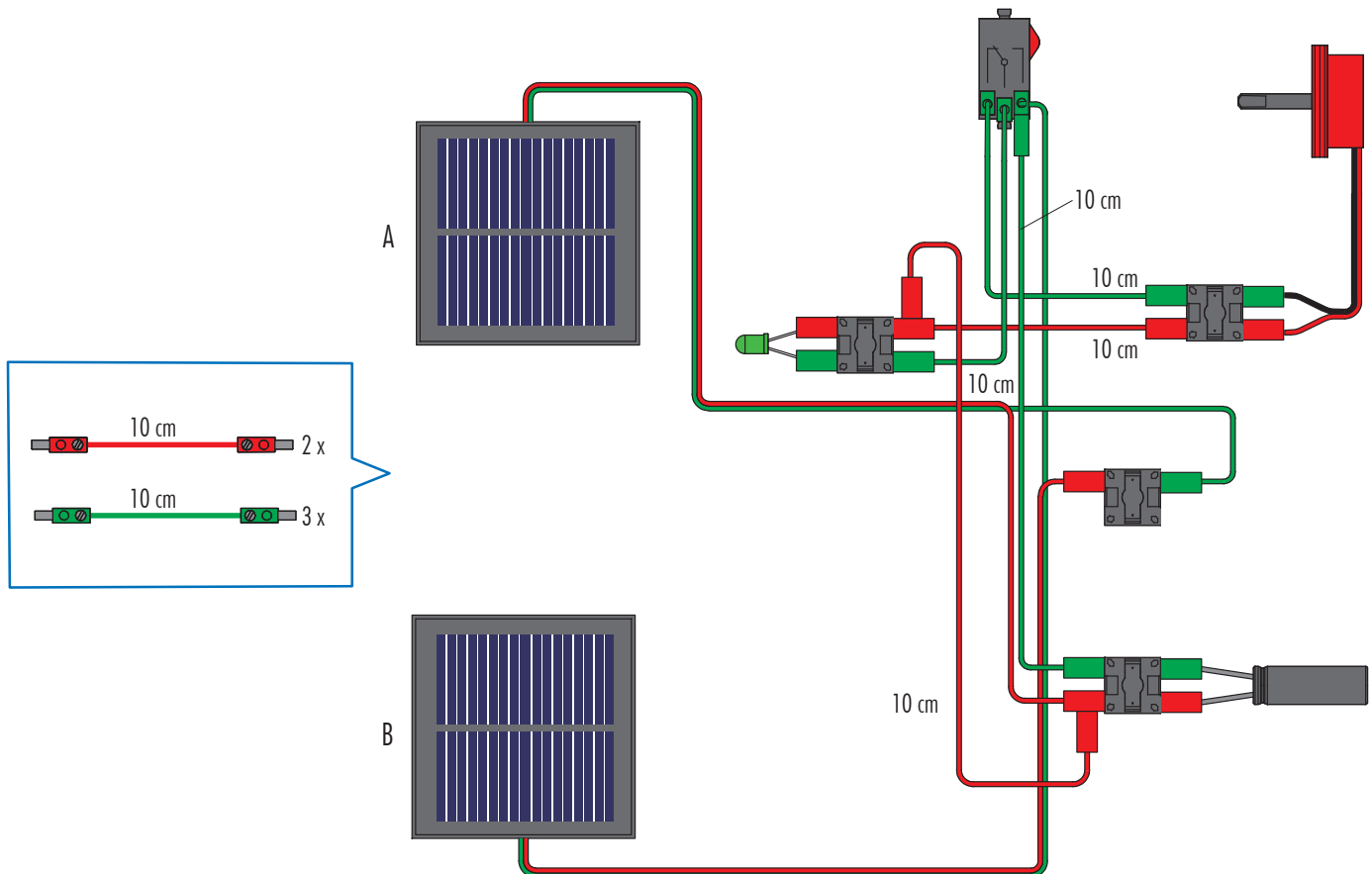
Compito 2
Задание 2
任务 2



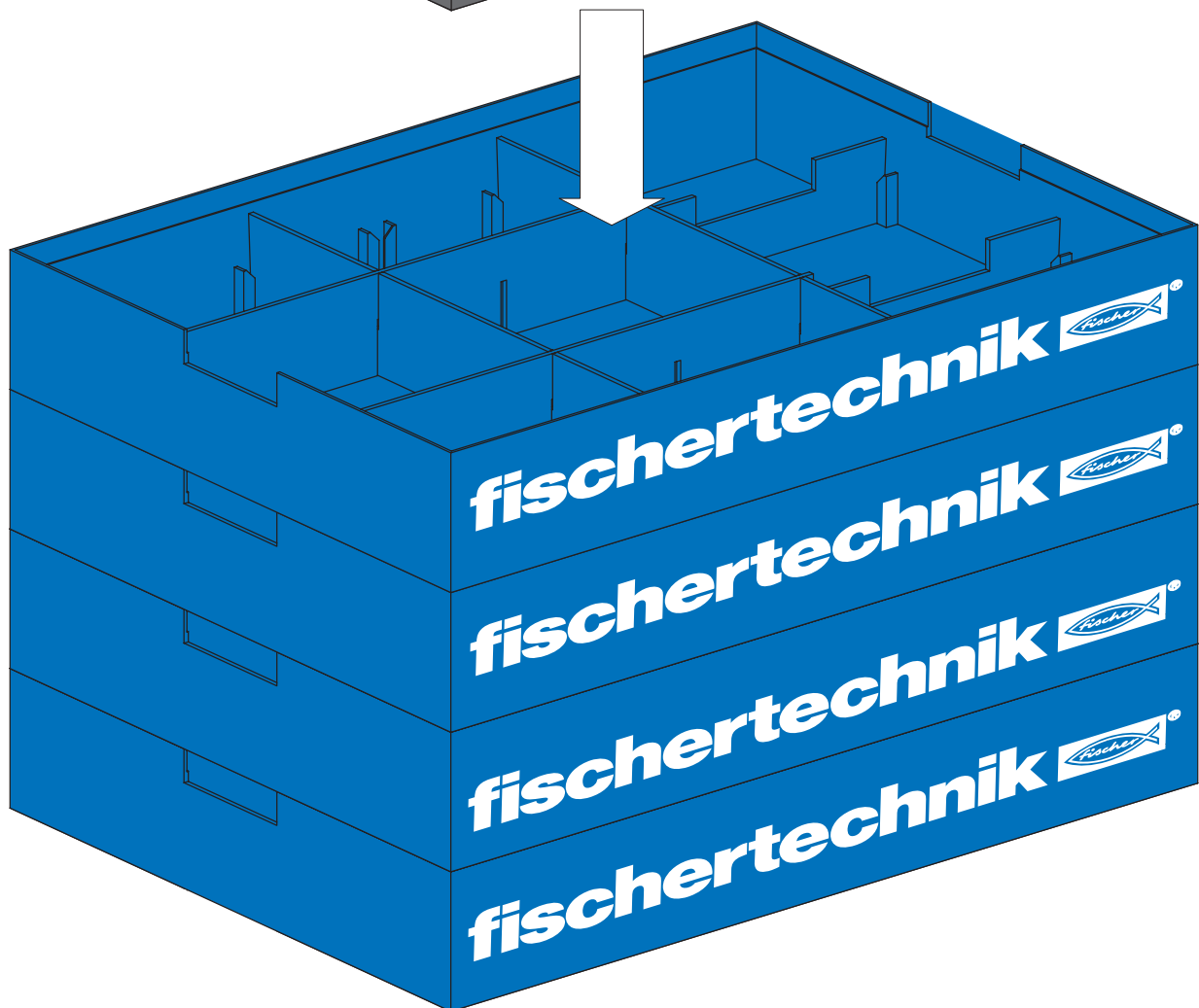
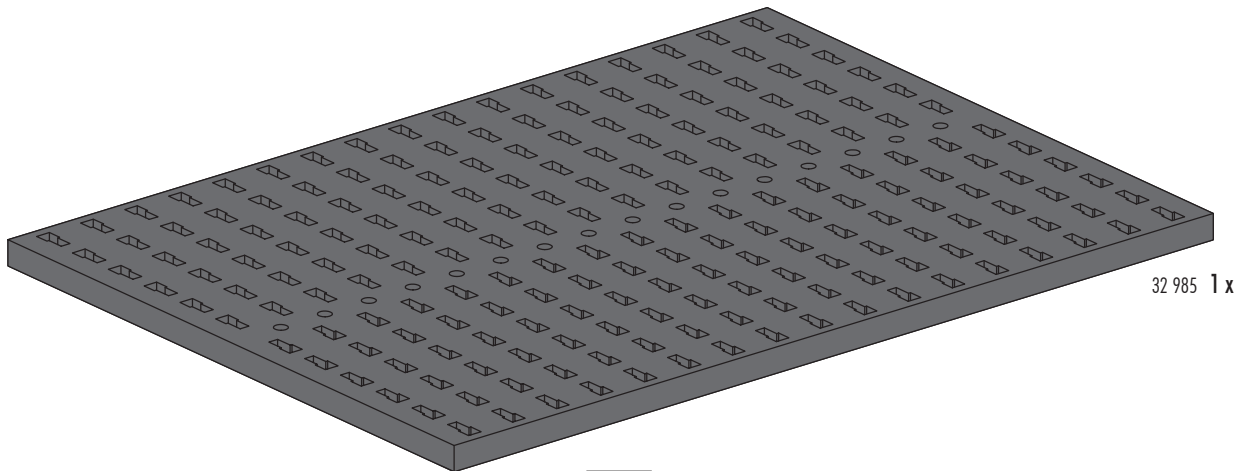
Aufgabe 3
Task 3
Exercise 3

Taak 3
Tarea 3
Tarefa 3

Compito 3
Задание 3
任务 3



Empfohlene Aufbewahrung:	4 x Aufbewahrungssystem Art.-Nr. 94828
Recommended storage:	4 x storage system Art No. 94828
Stockage conseillé :	4 x système de stockage Art n° 94828
Bewaaradvies:	4 x bewaarsysteem art.-nr. 94828
Consejos para guardar el producto:	4 x almacenamiento Art. Nº 94828
Conservação recomendada:	4 x sistema de conservação n.º de art. 94828
Conservazione consigliata:	4 sistemi di conservazione, cod. prod. 94828
Рекомендуемое хранение:	4 x бокса для хранения. Арт.№ 94 828
推荐的保存方式 :	4 个产品号为 94 828 的保存系统



Sortiervorschlag / Storage suggestion / Suggestion de classement / Sorteervoorstel / Propuesta de clasificación /
Proposta de divisão / Proposta di sistemazione / Рекомендации по сортировке / 保存系统的分类建议:

www.fischertechnik.de/Sortiervorschläge

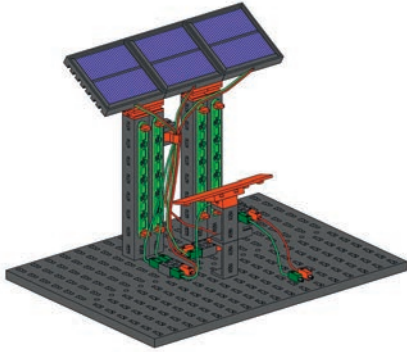
Profi Oeco Energy + Fuel Cell Kit

**Fuel Cell Kit
520 401**

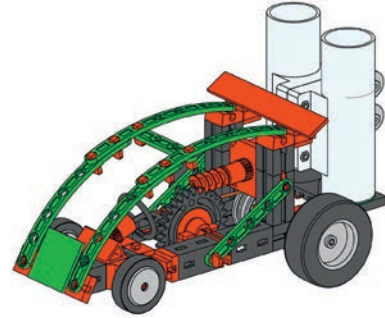
zusätzlich erforderlich
additionally required
à commander en supplément

extra noodzakelijk
adicionalmente necesario
adicionalmente necessário

accessorio necessario
дополнительно требуется
额外需要



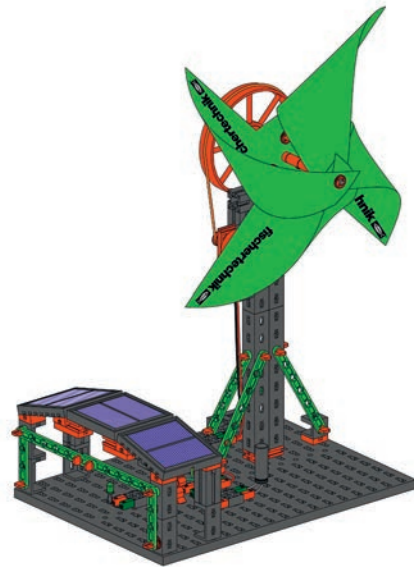
Solarstation / Solar station / Panneau solaire / Zonne-energiestation / Estación solar / Estação solar / Stazione solare / Солнечная станция / 太阳能站74



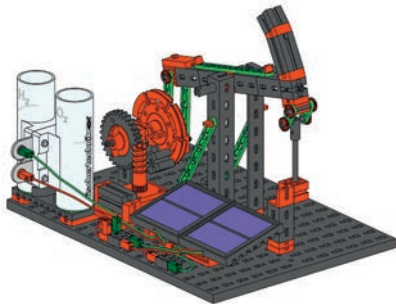
Brennstoffzellenfahrzeug / Fuel cell vehicle / Véhicule à cellule électrochimique / Voertuig met brandstofcellen / Vehículo de células de combustible / Veículo de célula a combustível / Veicolo a celle di carburante / Электромобиль с топливным элементом / 燃料电池车77



Solarfahrzeug mit 3 Solarmodulen / Solar vehicle with 3 solar modules / Véhicule solaire avec trois modules solaires / Voertuig op zonne-energie met 3 zonne-energiemodules / Vehículo solar con 3 módulos solares / Veículo solar com 3 módulos solares / Veicolo ad energia solare con 3 moduli solari / Электромобиль с 3 солнечными модулями / 配备 3 快太阳能模板太阳能电动车81



Erweitertes Ökohaus / Enhanced eco-house / Maison écologique élargie / Uitgebreid ecologisch huis / Casa ecológica ampliada / Casa ecológica ampliada / Eco casa ampliata / Расширенный „экологичный дом“ / 展的生态房屋84



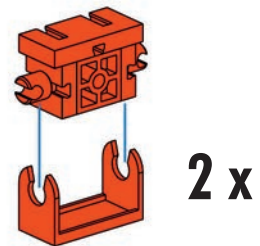
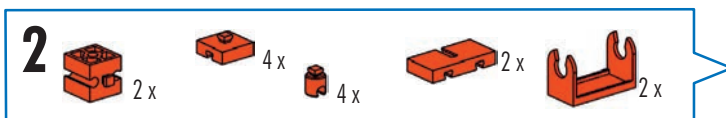
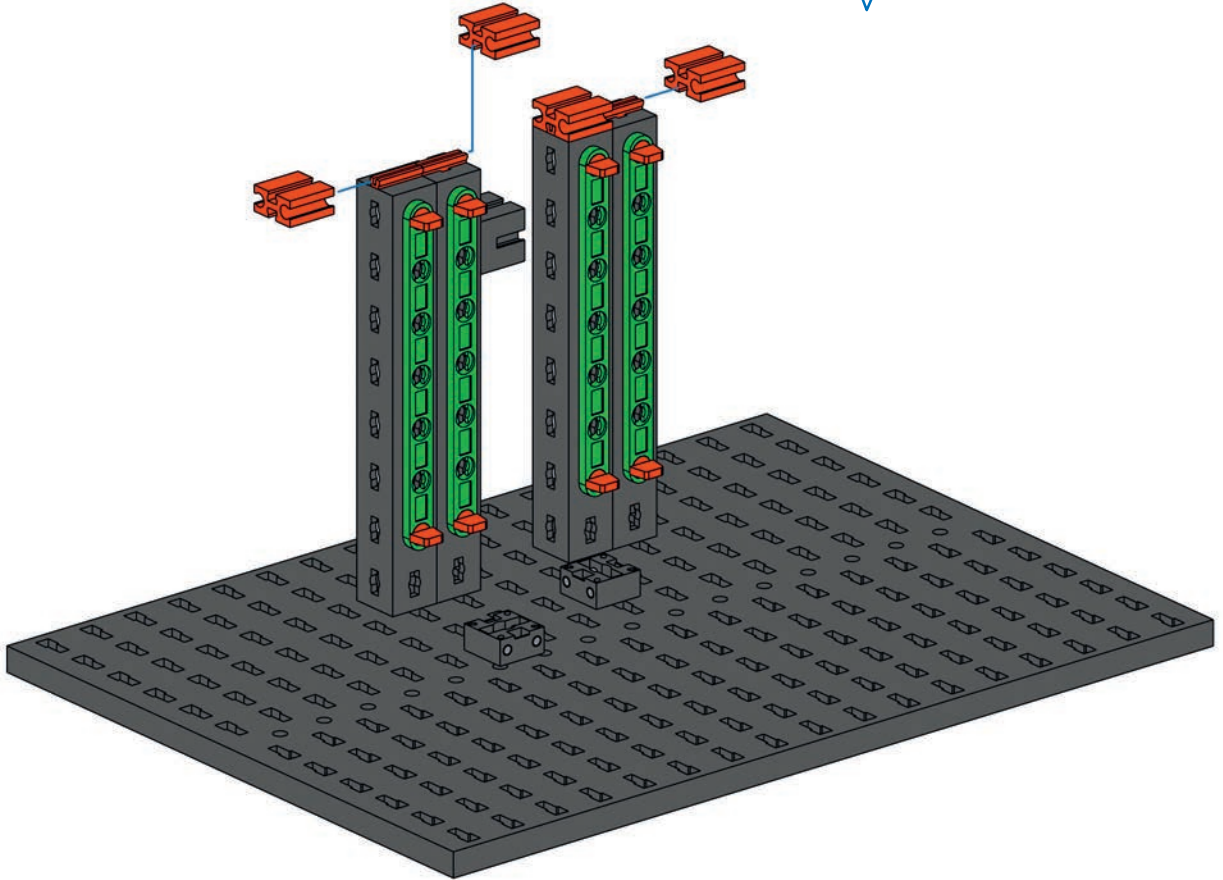
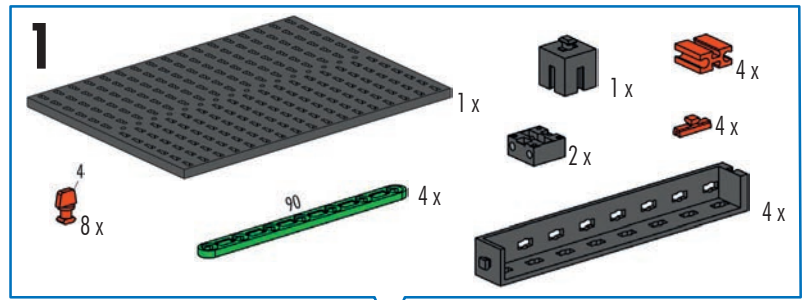
Solarpumpe mit Brennstoffzelle / Solar pump with fuel cell / Pompe solaire à cellule électrochimique / Zonne-energiepomp met brandstofcel / Bomba solar con célula de combustible / Bomba solar com célula a combustível / Pompa solare con cella di carburante / Солнечный насос с топливным элементом / 配备燃料电池的太阳能泵91

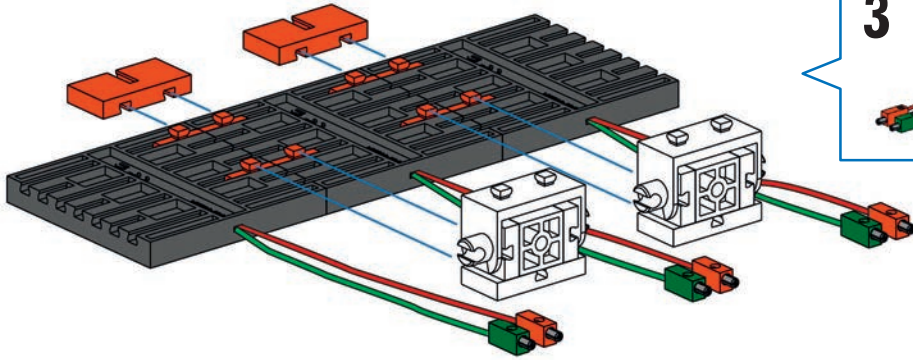


Solarstation
Solar station
Panneau solaire

Zonne-energiestation
Estación solar
Estação solar

Stazione solare
Солнечная станция
太阳能站



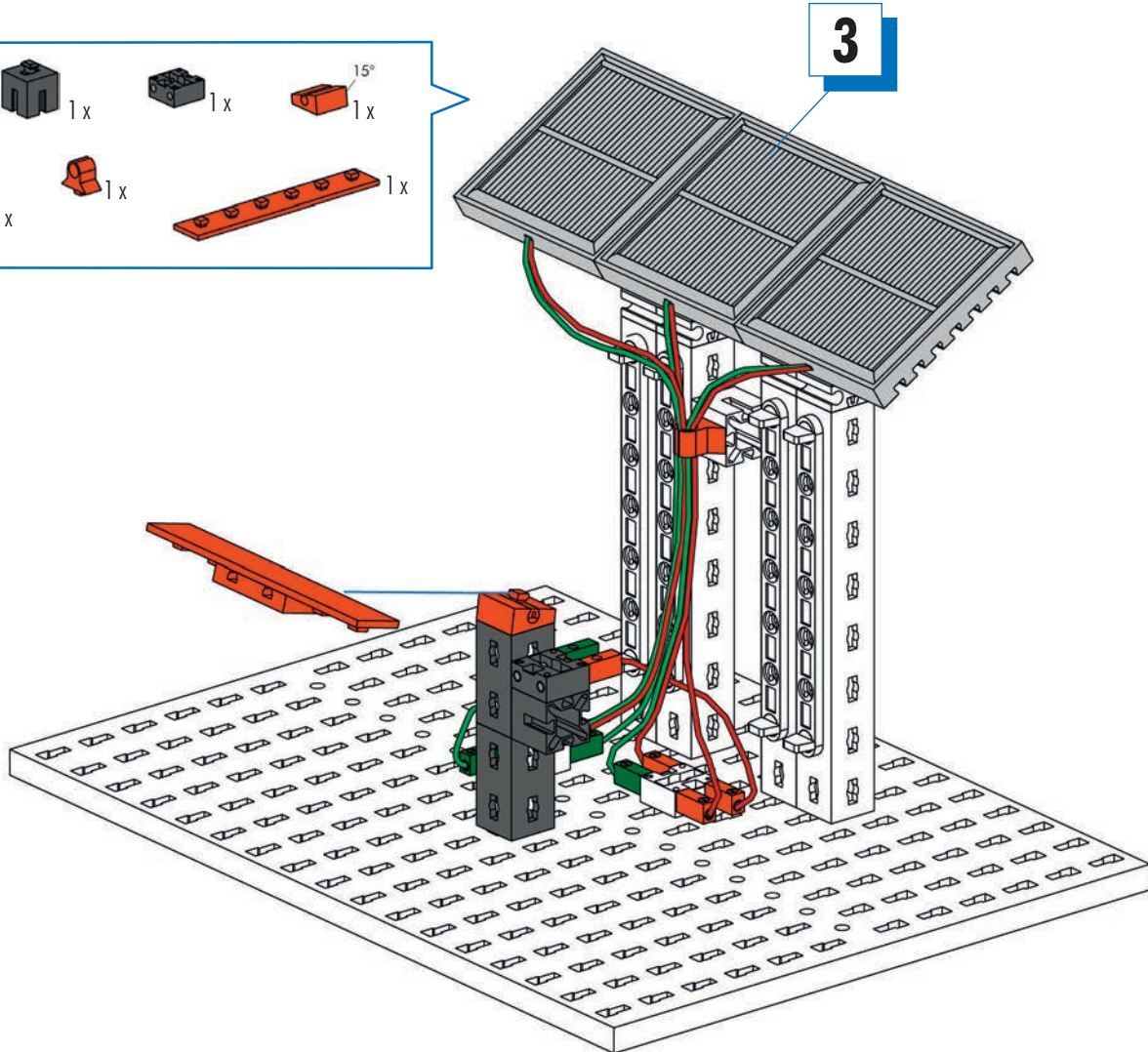


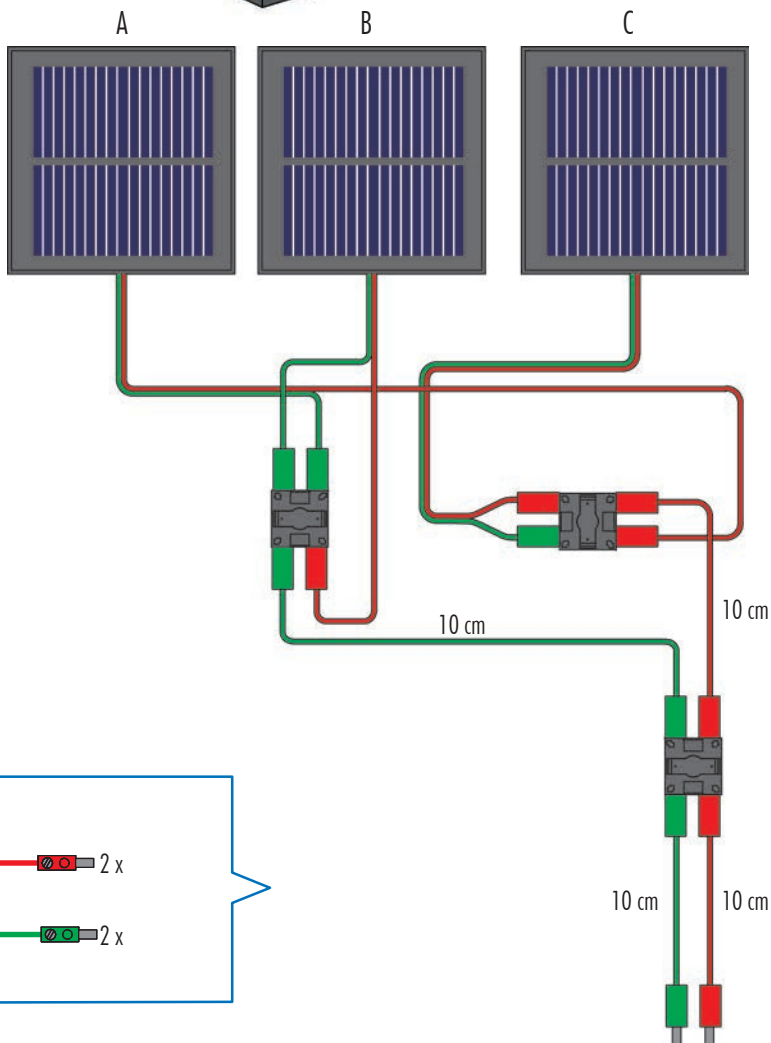
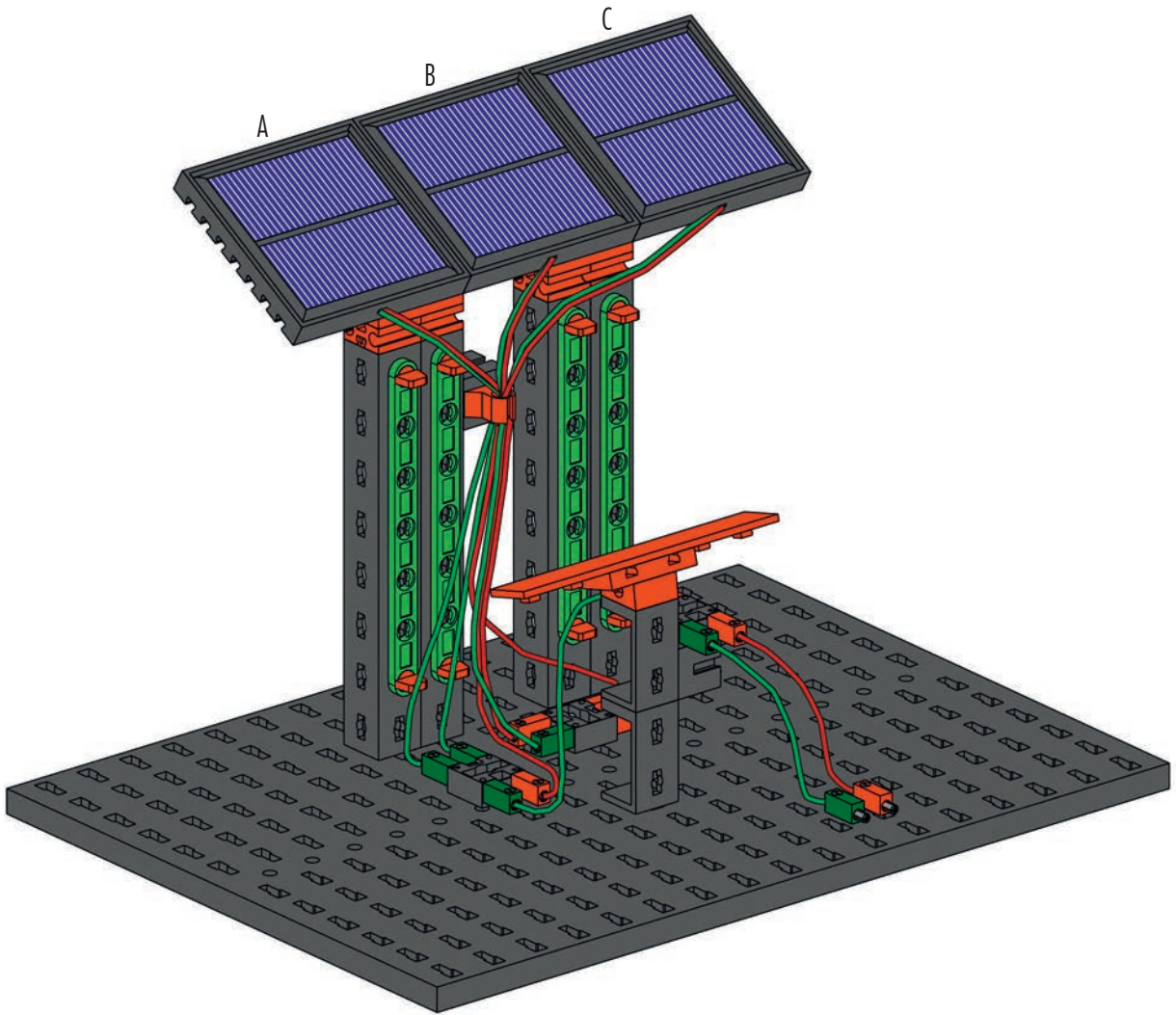
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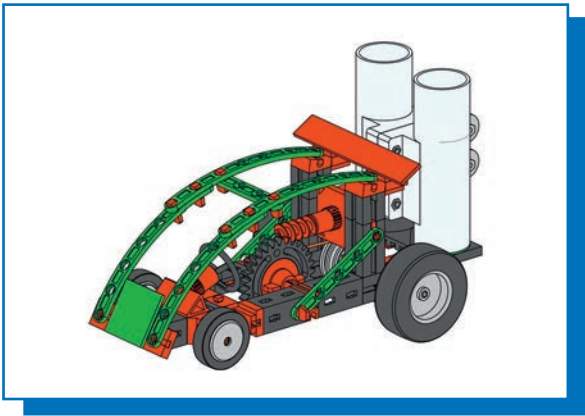
- 3 x [Purple square component]
- 8 x [Small orange pin]
- 2 x [Orange connector]

4

- 2 x [Grey rectangular component]
- 1 x [Grey rectangular component]
- 1 x [Grey rectangular component]
- 1 x [Orange component with 15° angle]
- 1 x [Orange component]
- 1 x [Small orange pin]
- 1 x [Orange component]
- 1 x [Long orange beam with 4 holes]



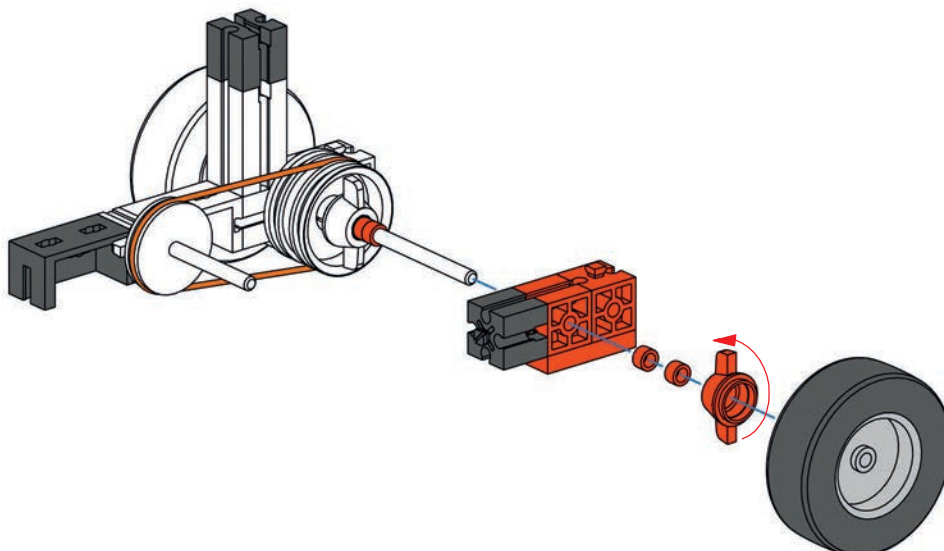
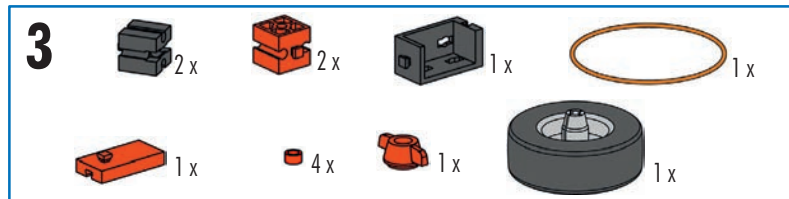
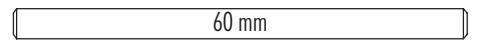
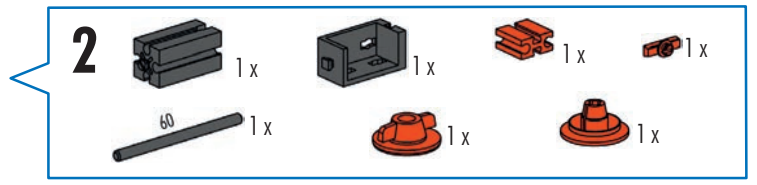
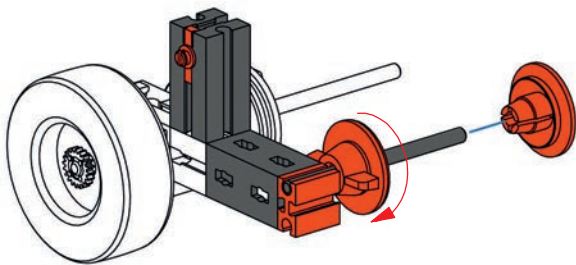
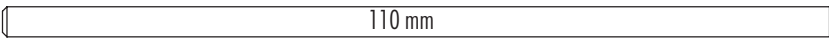
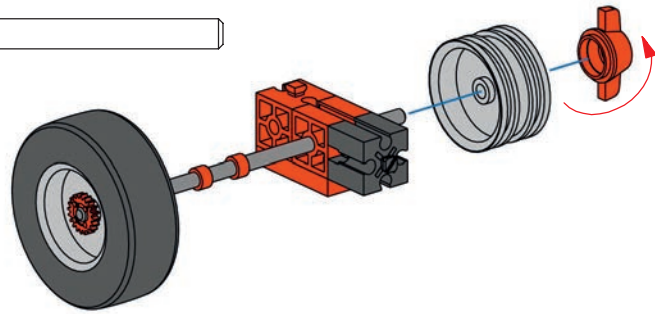
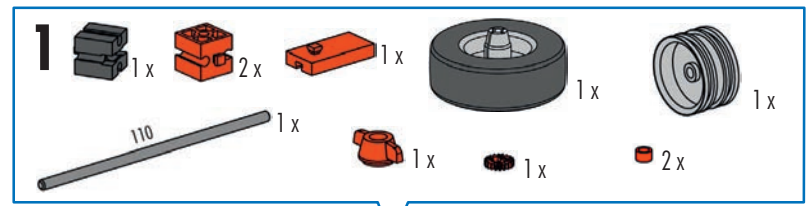




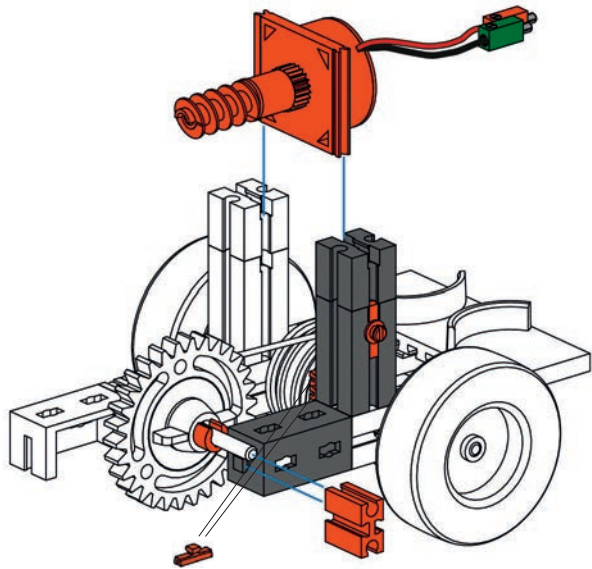
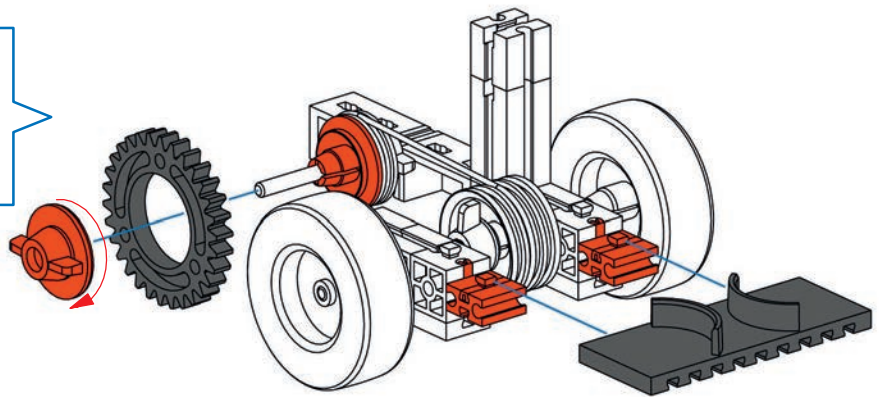
Brennstoffzellenfahrzeug
Fuel cell vehicle
Véhicule à cellule électrochimique

Voertuig met brandstofcellen
Vehículo de células de combustible
Veículo de célula a combustível

Veicolo a celle di carburante
Электромобиль с топливным элементом
燃料电池车

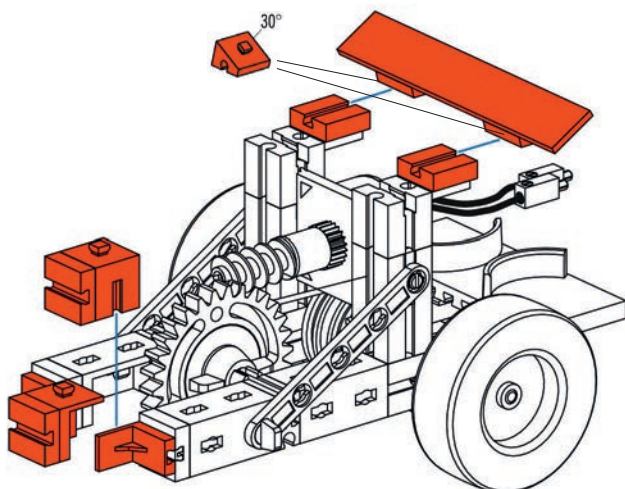
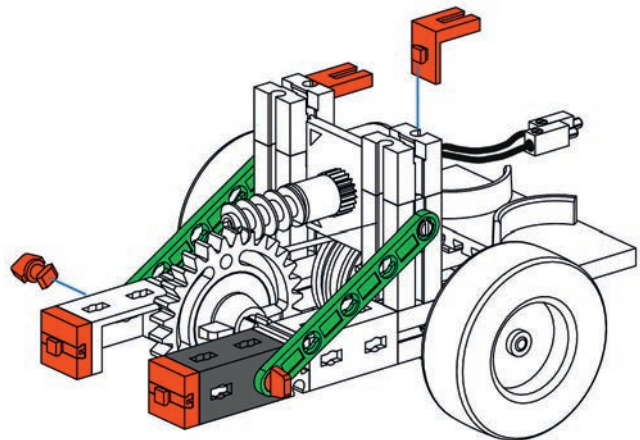


- 4**
- 1 x [Grey Technic Beam 1x6 with Grooves]
 - 1 x [Grey Gear 24 Tooth]
 - 2 x [Orange Technic Pin with Friction Ridge]
 - 4 x [Orange Technic Pin with Friction Ridge]
 - 1 x [Orange Technic Pin with Friction Ridge]
 - 1 x [Orange Technic Pin with Friction Ridge]

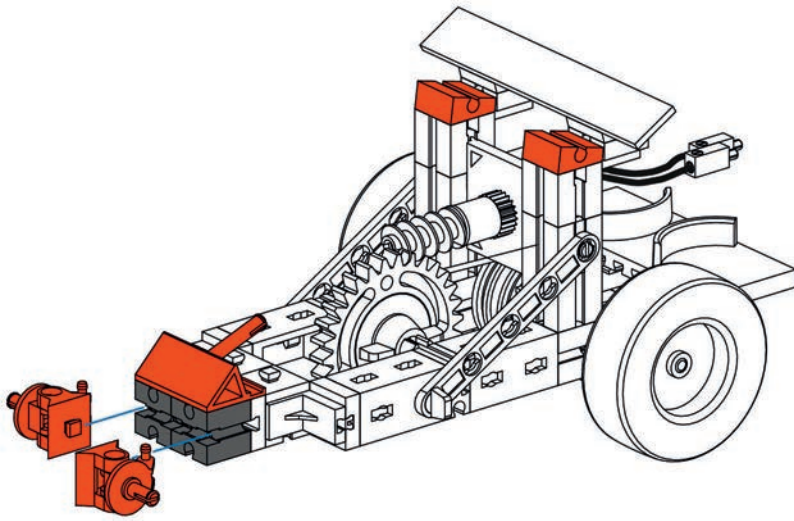


- 5**
- 1 x [Grey Technic Beam 1x6 with Grooves]
 - 1 x [Grey Technic Beam 1x6 with Grooves]
 - 1 x [Grey Technic Beam 1x6 with Grooves]
 - 2 x [Orange Technic Pin with Friction Ridge]
 - 1 x [Orange Technic Pin with Friction Ridge]
 - 1 x [Orange Technic Pin with Friction Ridge]
 - 1 x [Orange Motor]
 - 1 x [Orange Technic Pin with Friction Ridge]
 - 1 x [Orange Technic Pin with Friction Ridge]

- 6**
- 1 x [Grey Technic Beam 1x6 with Grooves]
 - 2 x [Green Technic Beam 60]
 - 2 x [Orange Technic Pin with Friction Ridge]
 - 2 x [Orange Technic Pin with Friction Ridge]
 - 2 x [Orange Technic Pin with Friction Ridge]

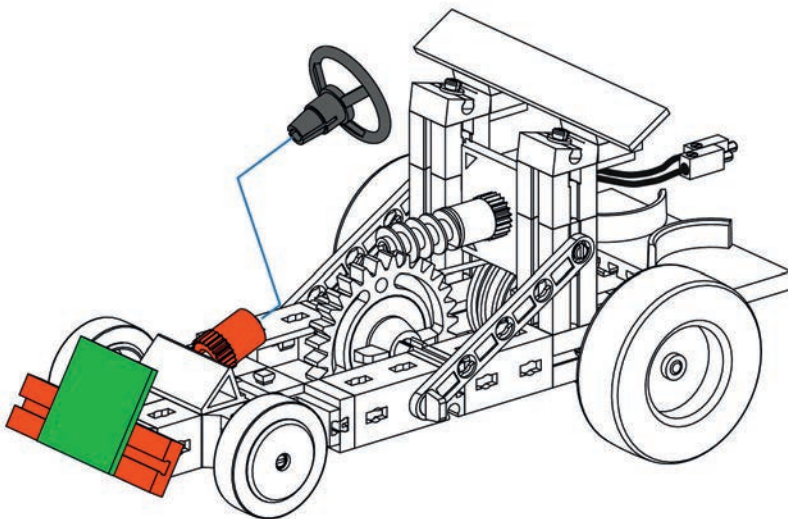
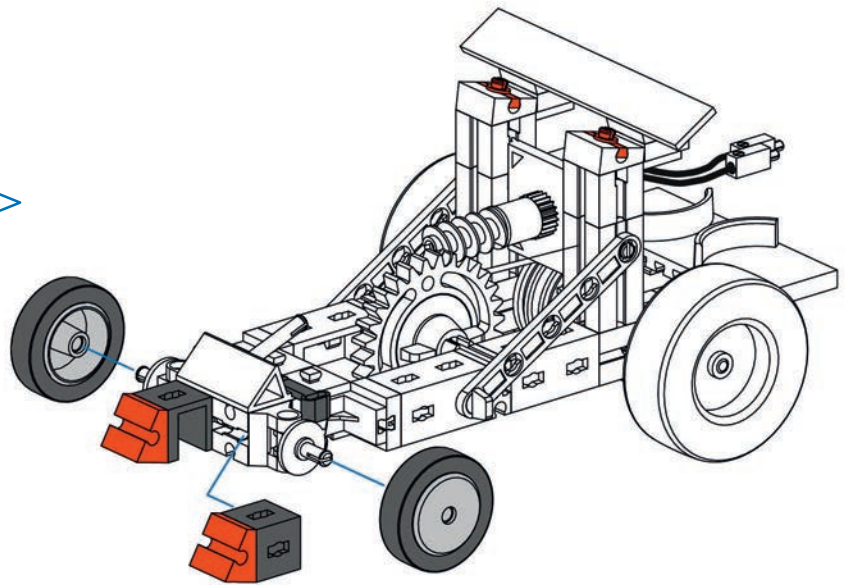


- 7**
- 2 x [Orange Technic Pin with Friction Ridge]
 - 4 x [Orange Technic Pin with Friction Ridge]
 - 2 x [Orange Technic Pin with Friction Ridge]
 - 2 x [Orange Technic Pin with Friction Ridge]
 - 1 x [Orange Technic Beam 1x6 with Grooves]



- 8**
- 2x [Black Technic Beam]
 - 1x [Red Technic Pin]
 - 2x [Red Technic Pin 15°]
 - 2x [Red Technic Pin]

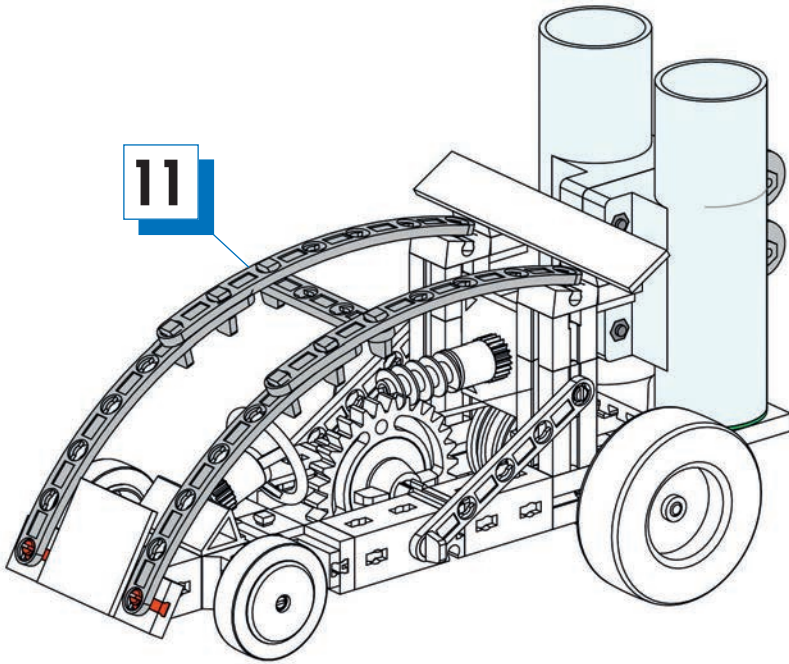
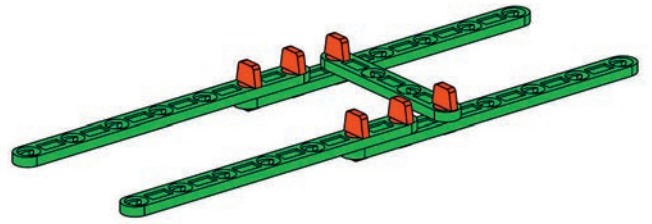
- 9**
- 2x [Grey Technic Wheel]
 - 2x [Grey Technic Ring]
 - 1x [Black Technic Axle]
 - 2x [Red Technic Pin]
 - 2x [Red Technic Pin 30°]
 - 2x [Black Technic Pin]



- 10**
- 1x [Black Steering Wheel]
 - 1x [Red Technic Pin]
 - 2x [Red Technic Pin]
 - 1x [Green Technic Plate]

11

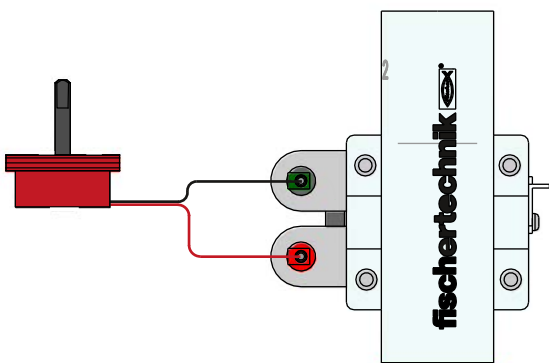
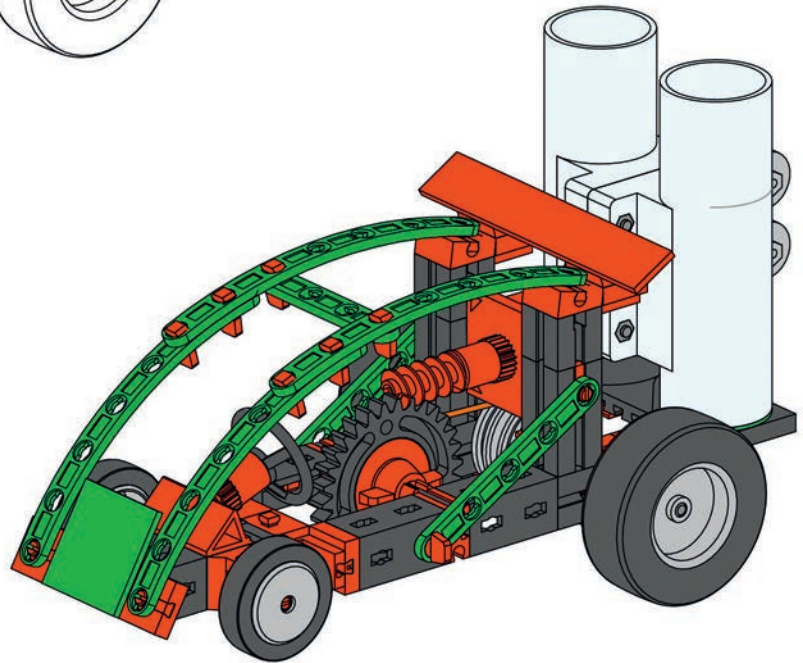
90 4 x 45 1 x 4 6 x

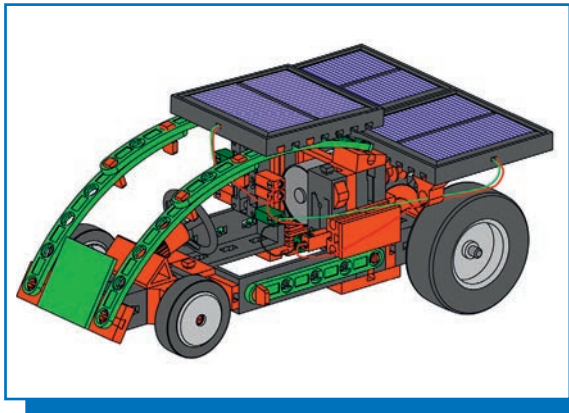


12

2 x

1 x





Solarfahrzeug mit
3 Solarmodulen
Solar vehicle with
3 solar modules
Véhicule solaire avec
trois modules solaires

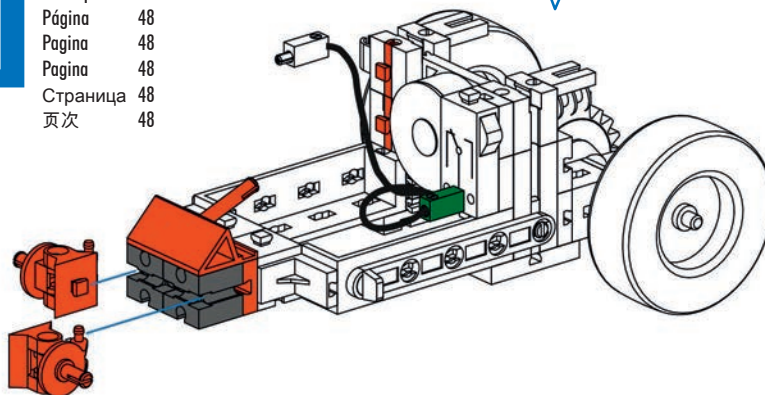
Voertuig op zonne-energie
met 3 zonne-energiemodules
Vehículo solar con
3 módulos solares
Veículo solar com
3 módulos solares

Veicolo ad energia solare
con 3 moduli solari
Электромобиль с 3
солнечными модулями
配备 3 块太阳能模板太阳能
电动车

1-6

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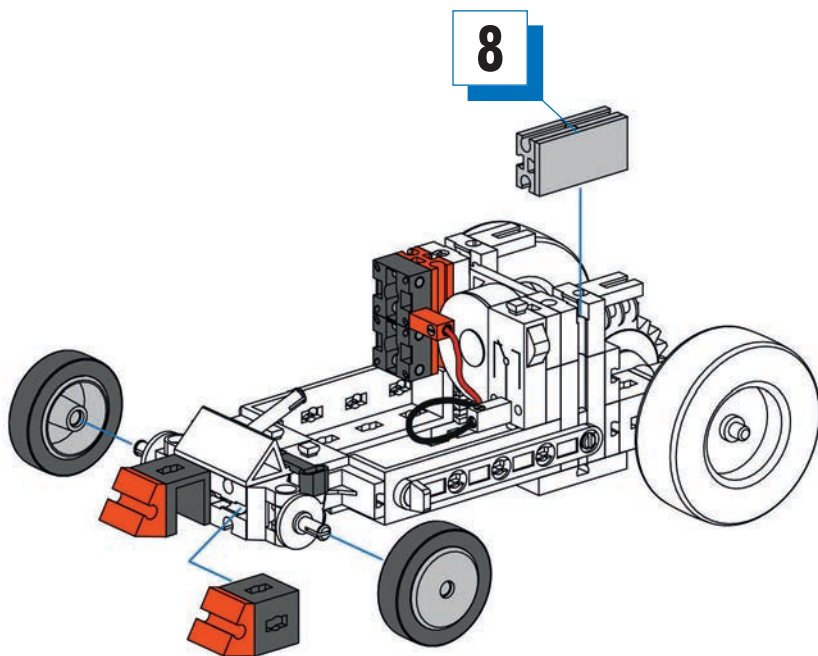
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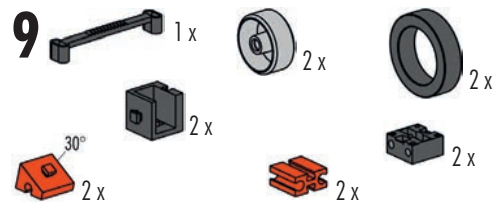
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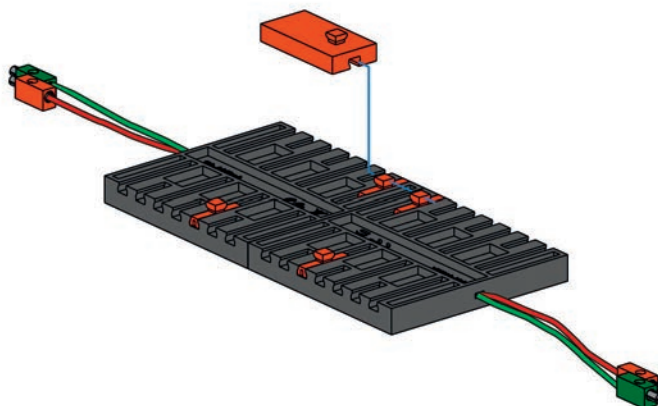
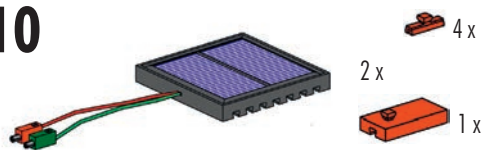
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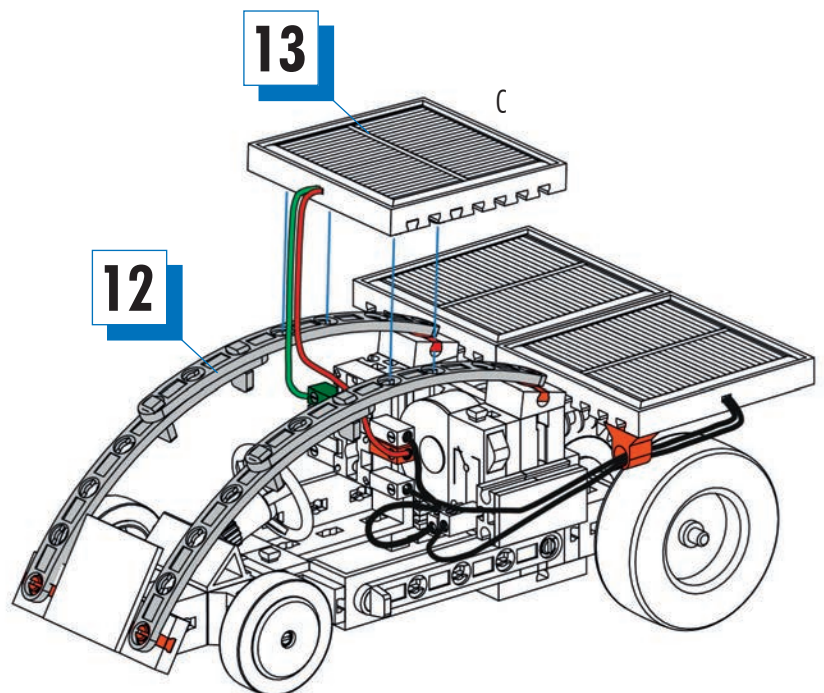
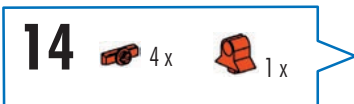
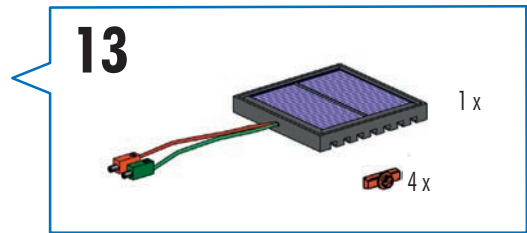
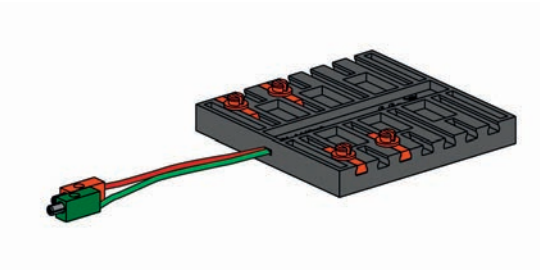
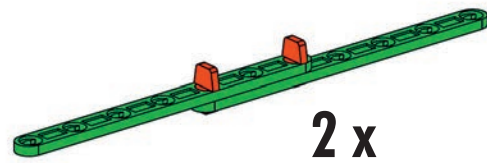
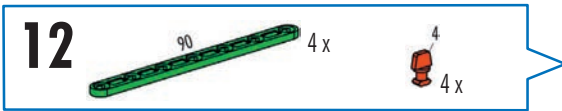
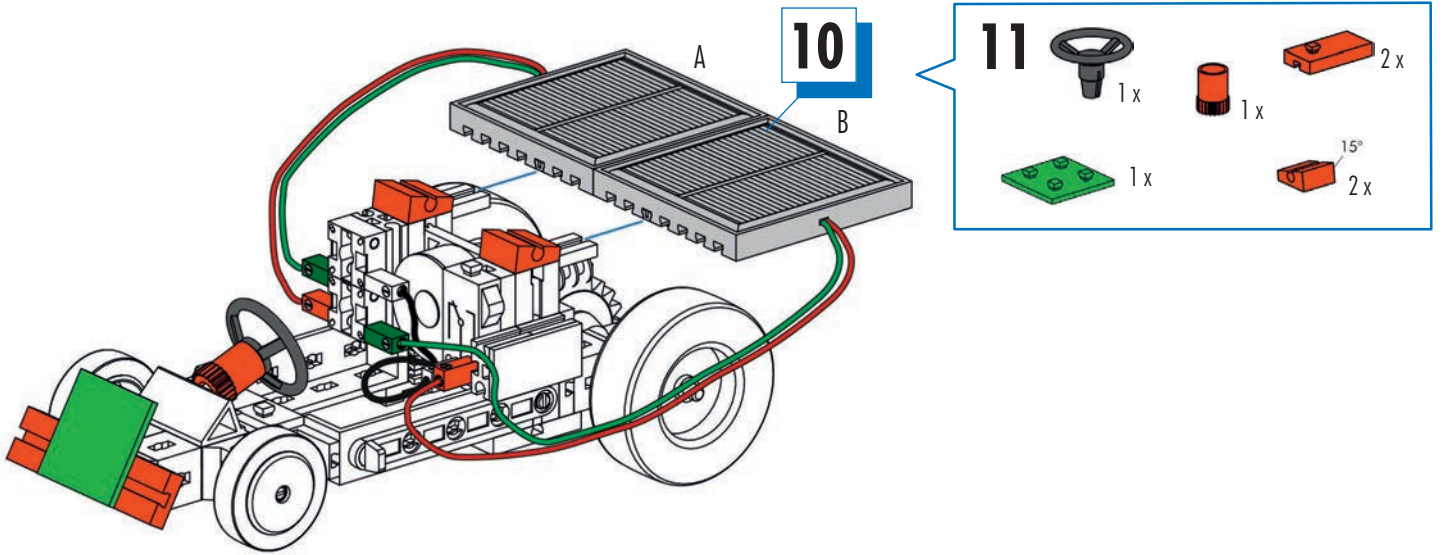


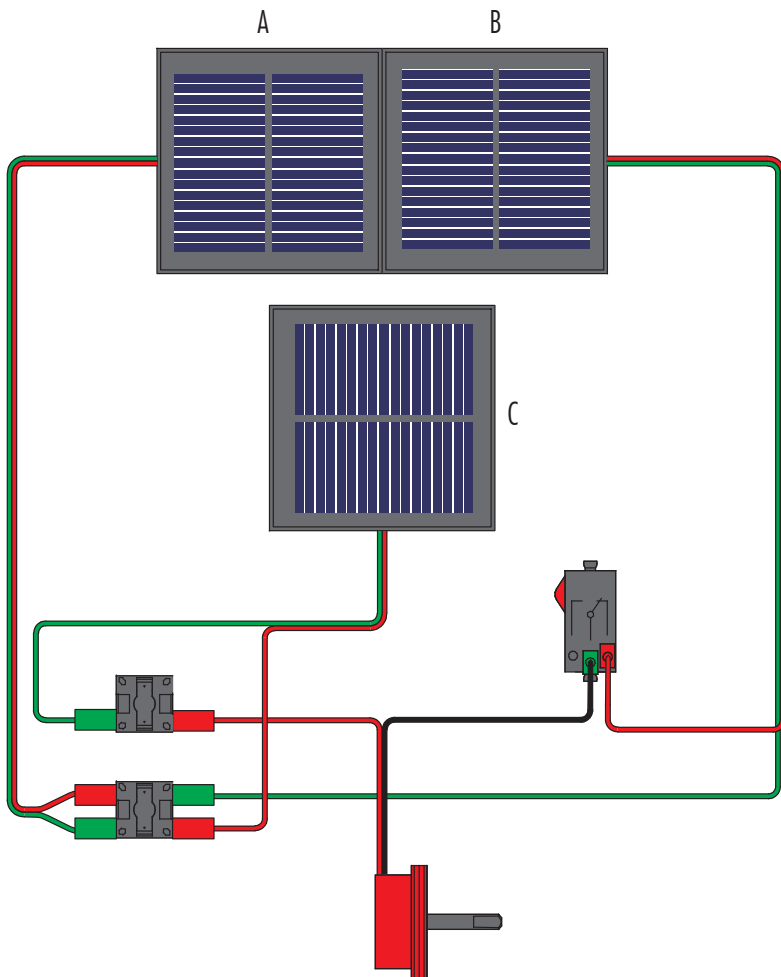
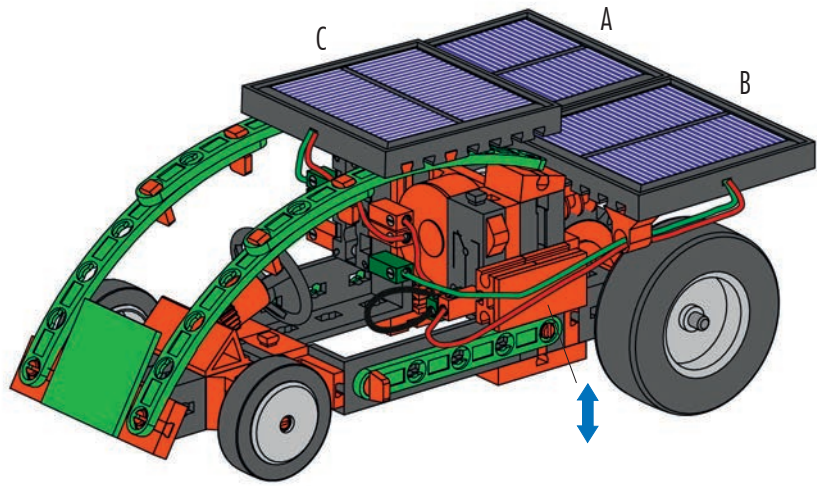
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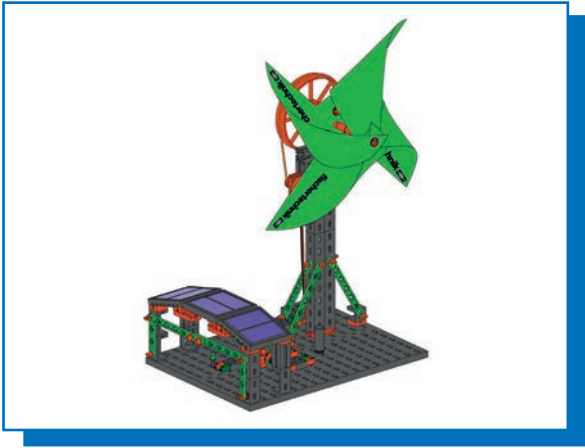


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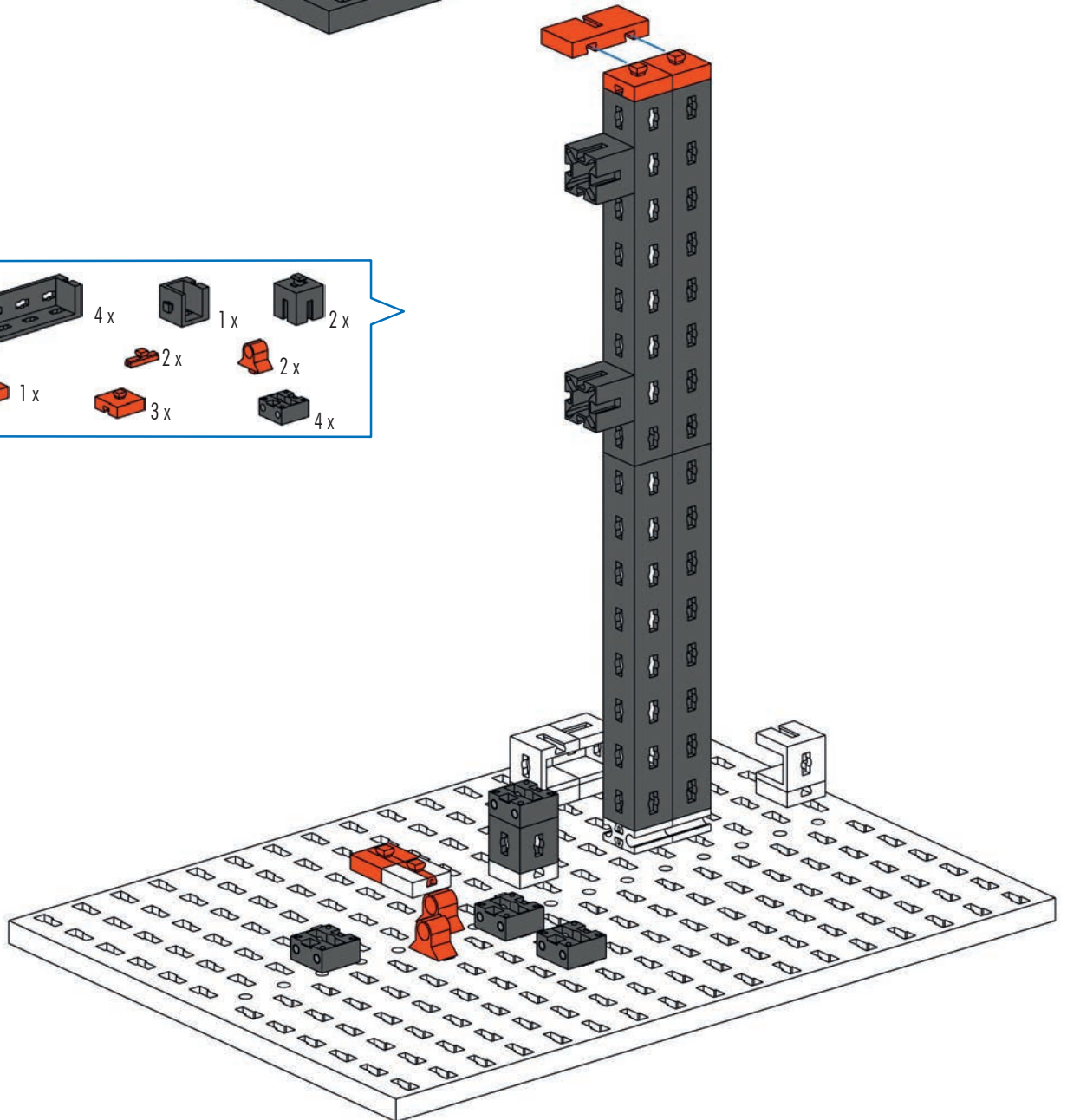
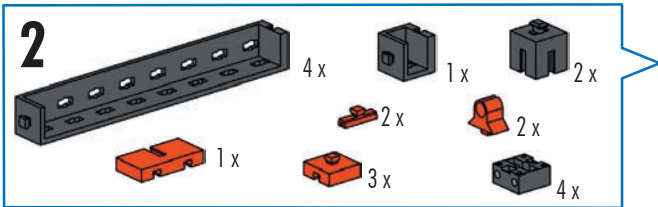
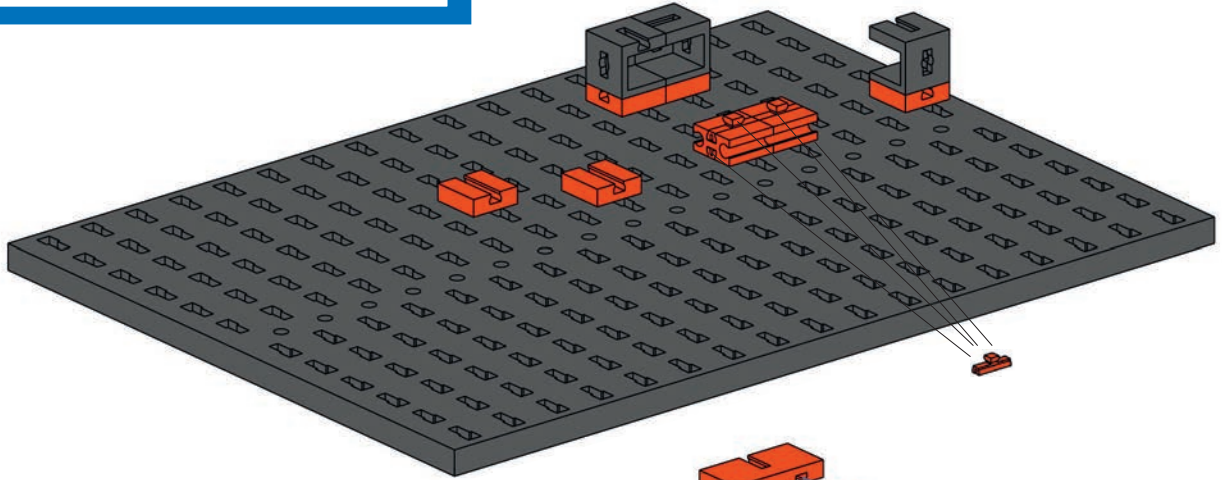
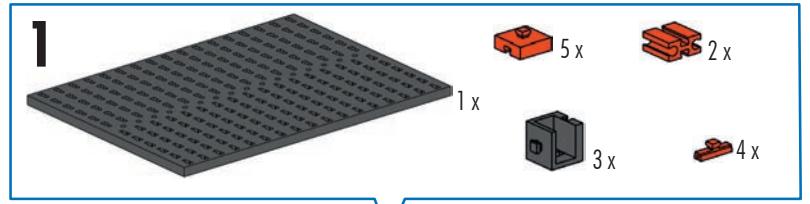






Erweitertes Ökohaus
Enhanced eco-house
Maison écologique
élargie

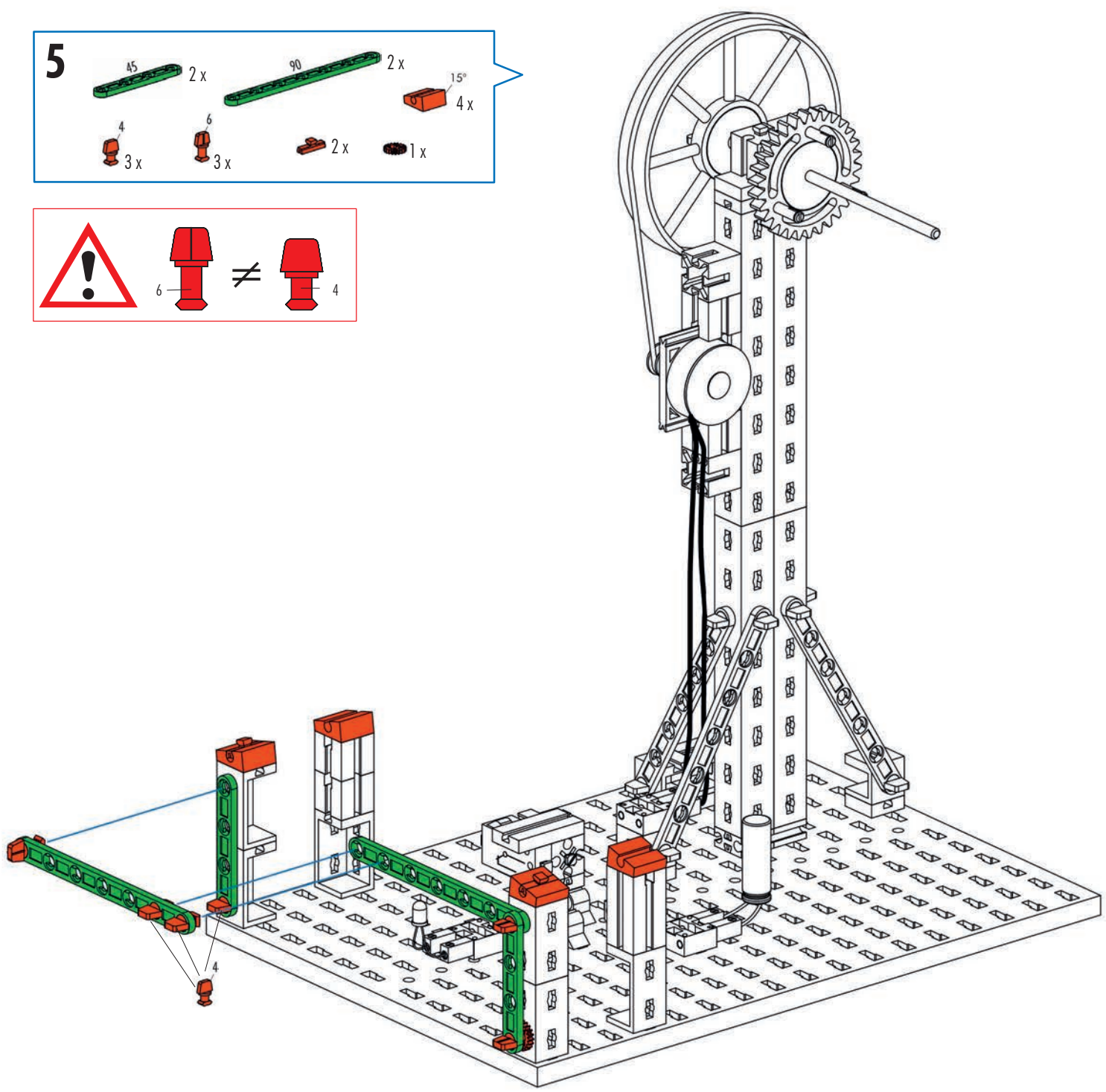
Uitgebreid ecologisch huis Eco casa ampliata
Casa ecológica ampliada
Casa ecológica ampliada
Расширенный
„экологичный дом“
扩展的生态房屋



5

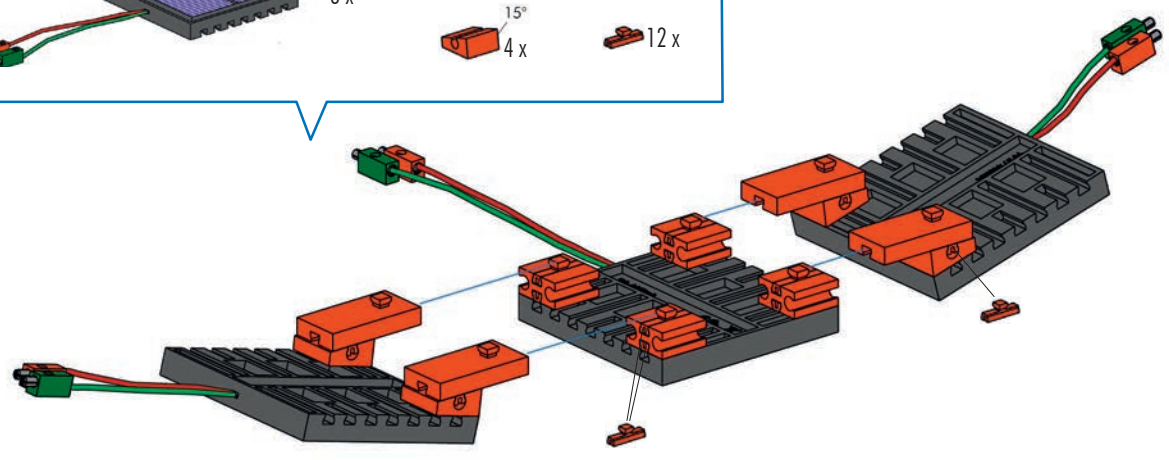
- 45 2 x
- 90 2 x
- 15° 4 x
- 4 3 x
- 6 3 x
- 2 x
- 1 x

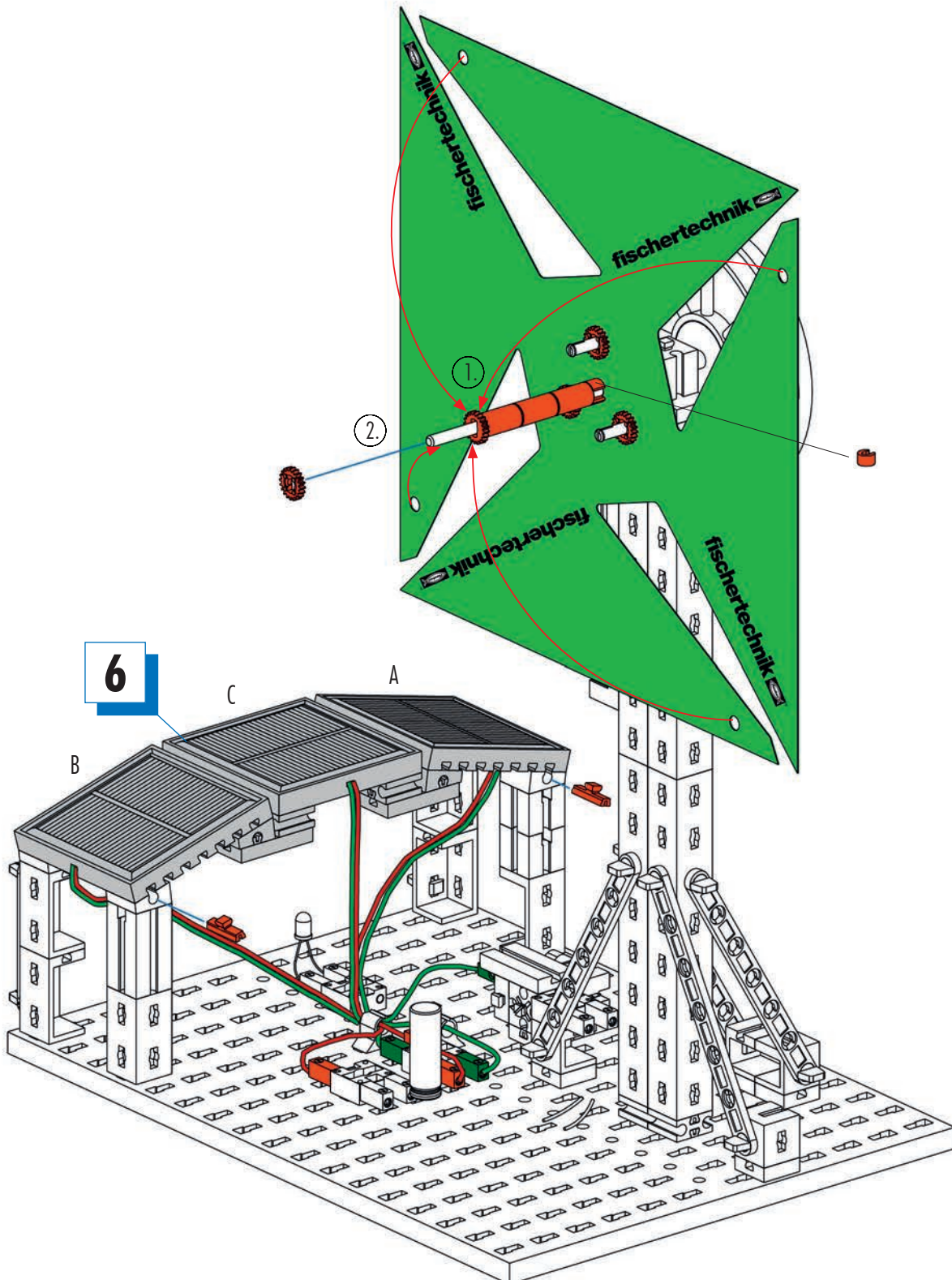
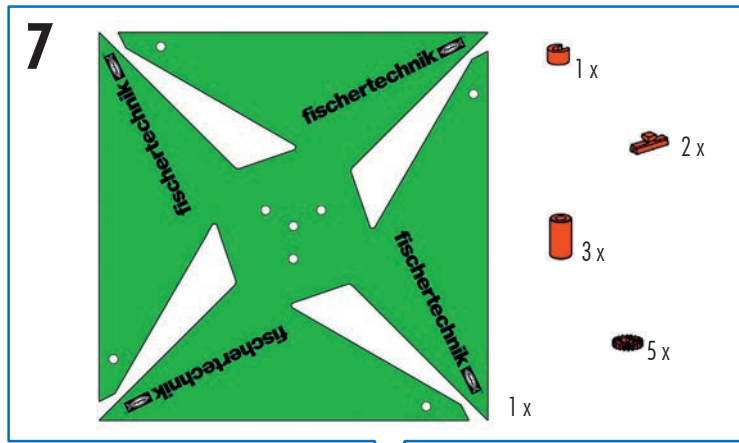
6 ≠ 4

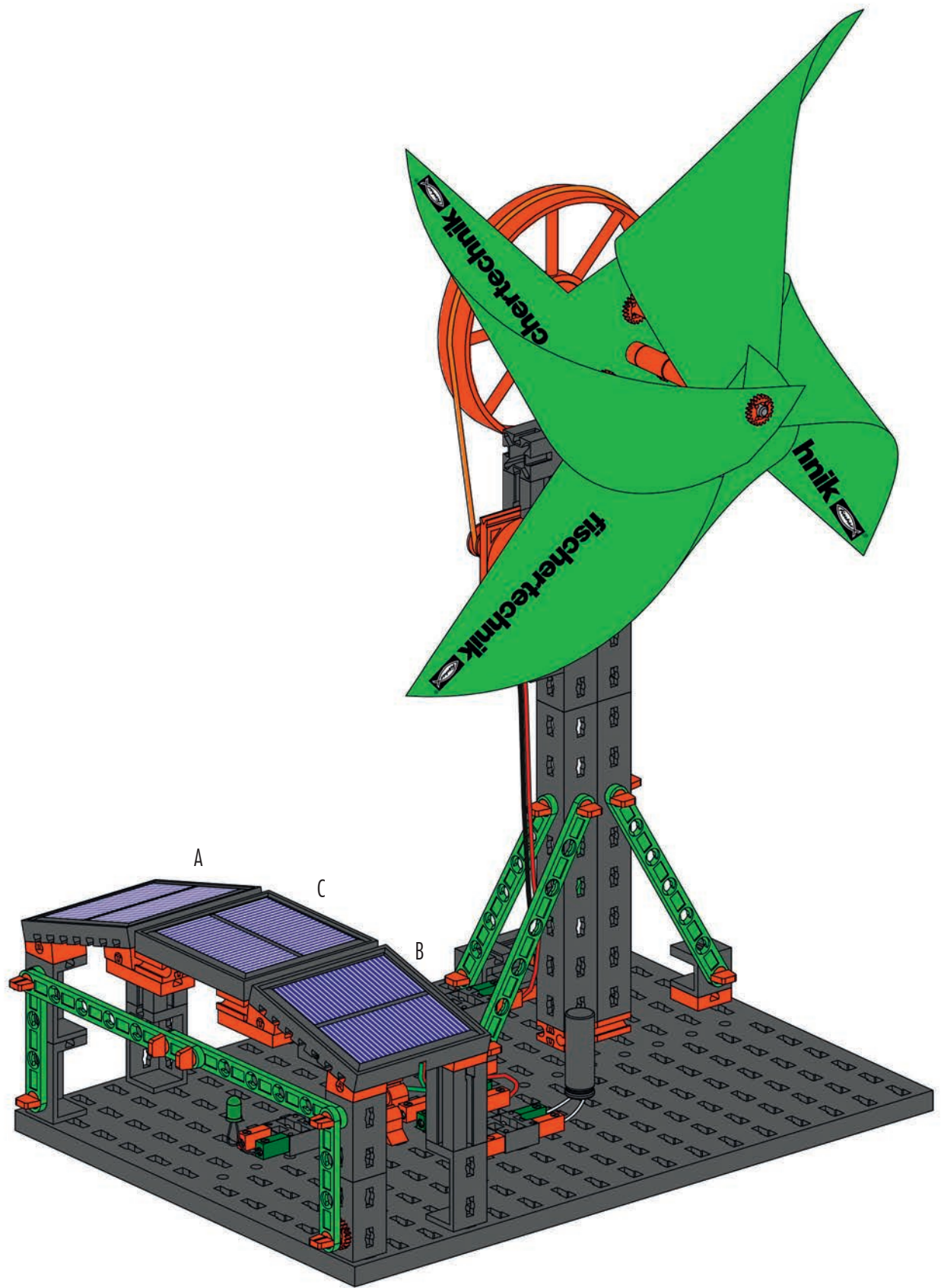


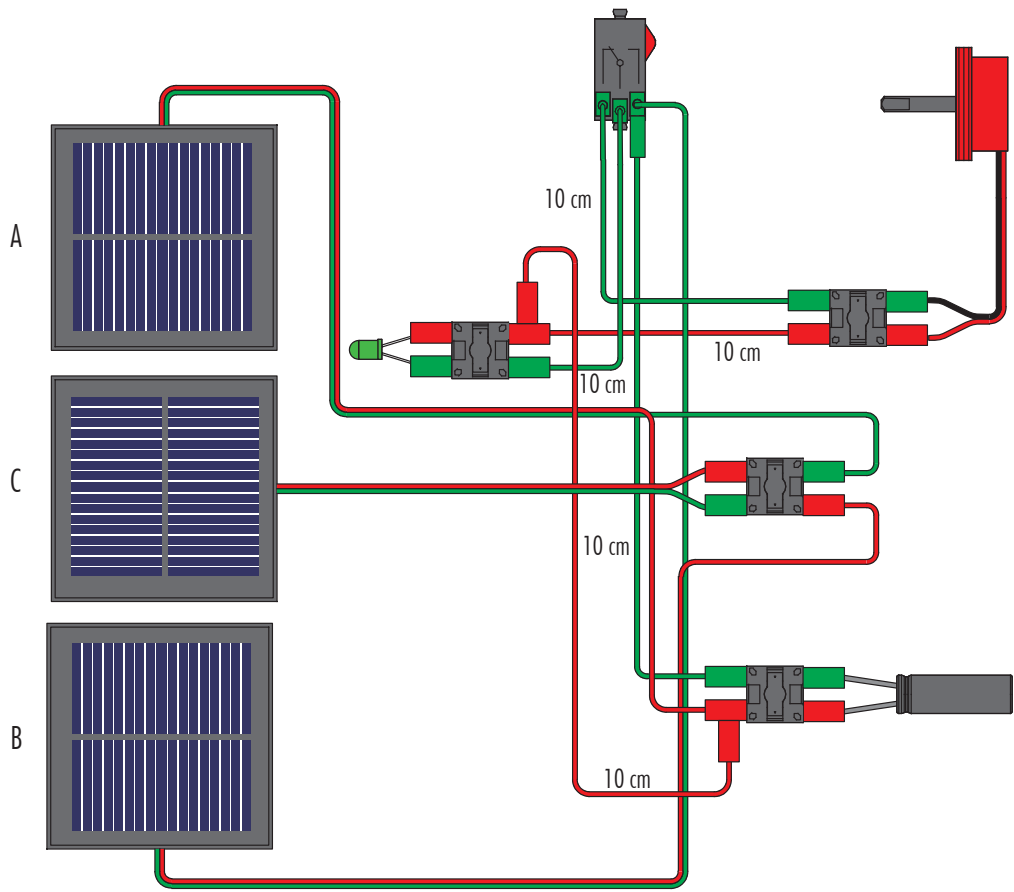
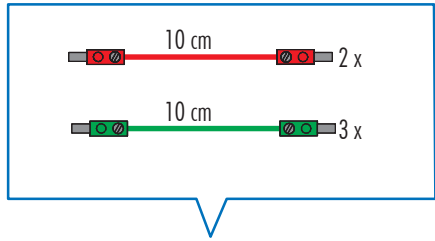
6

- 3 x
- 4 x
- 4 x
- 15° 4 x
- 12 x





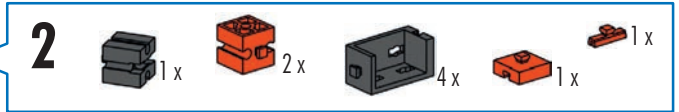
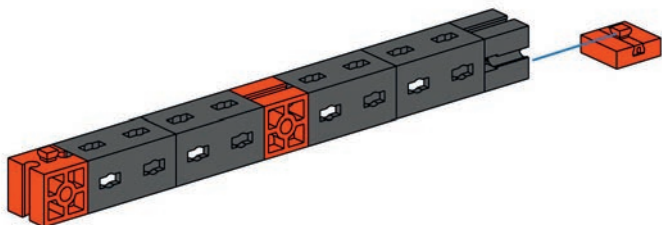
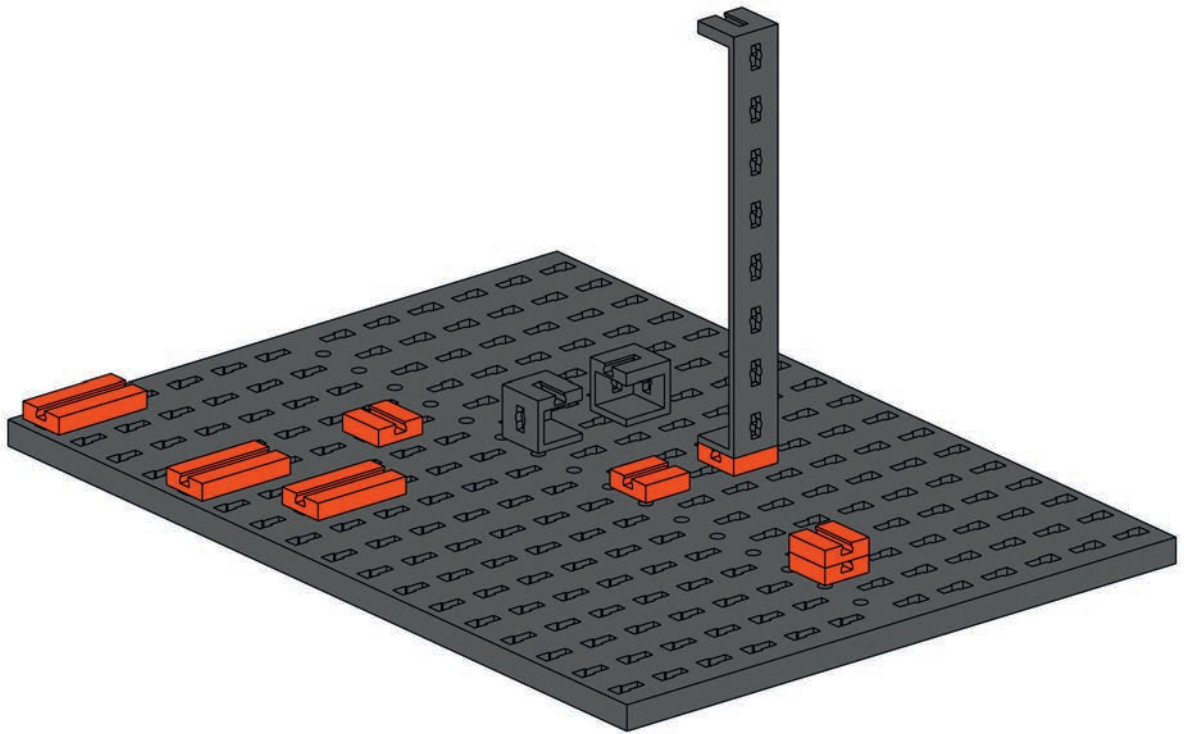
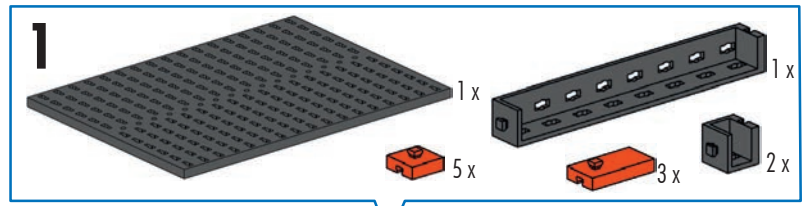
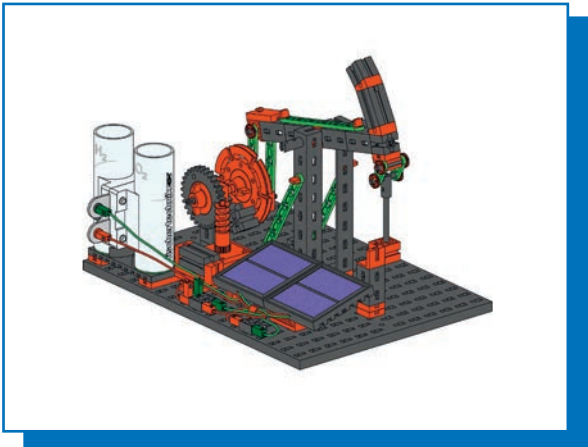


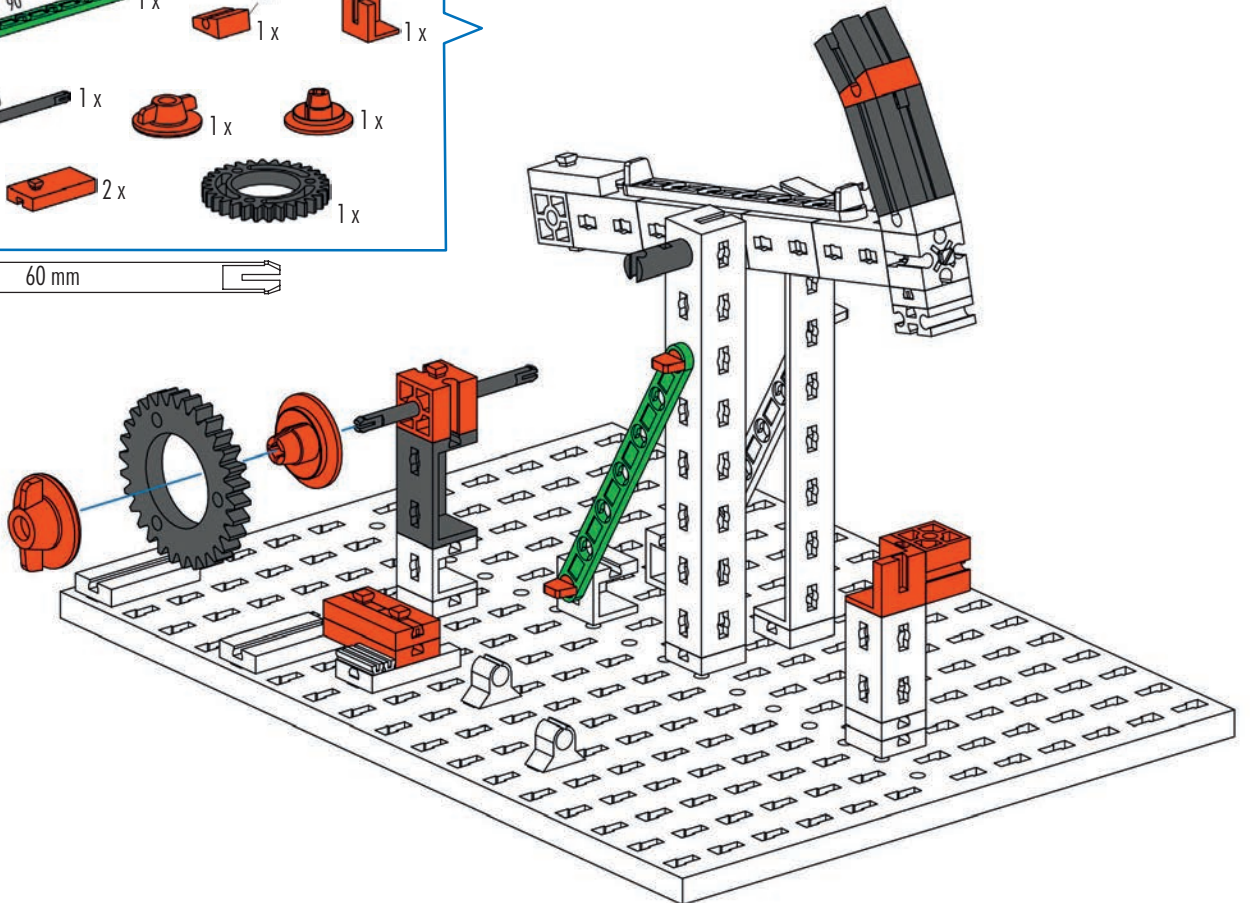
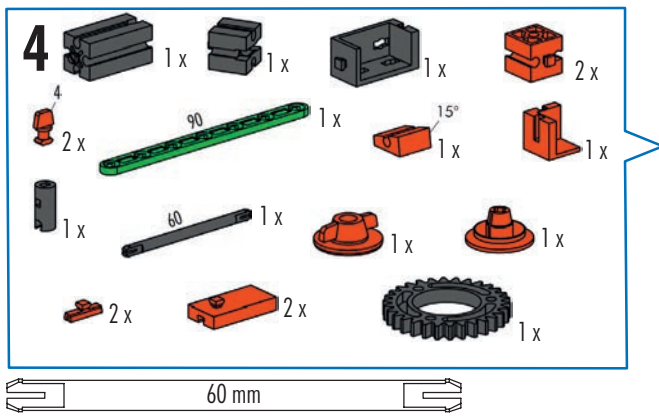
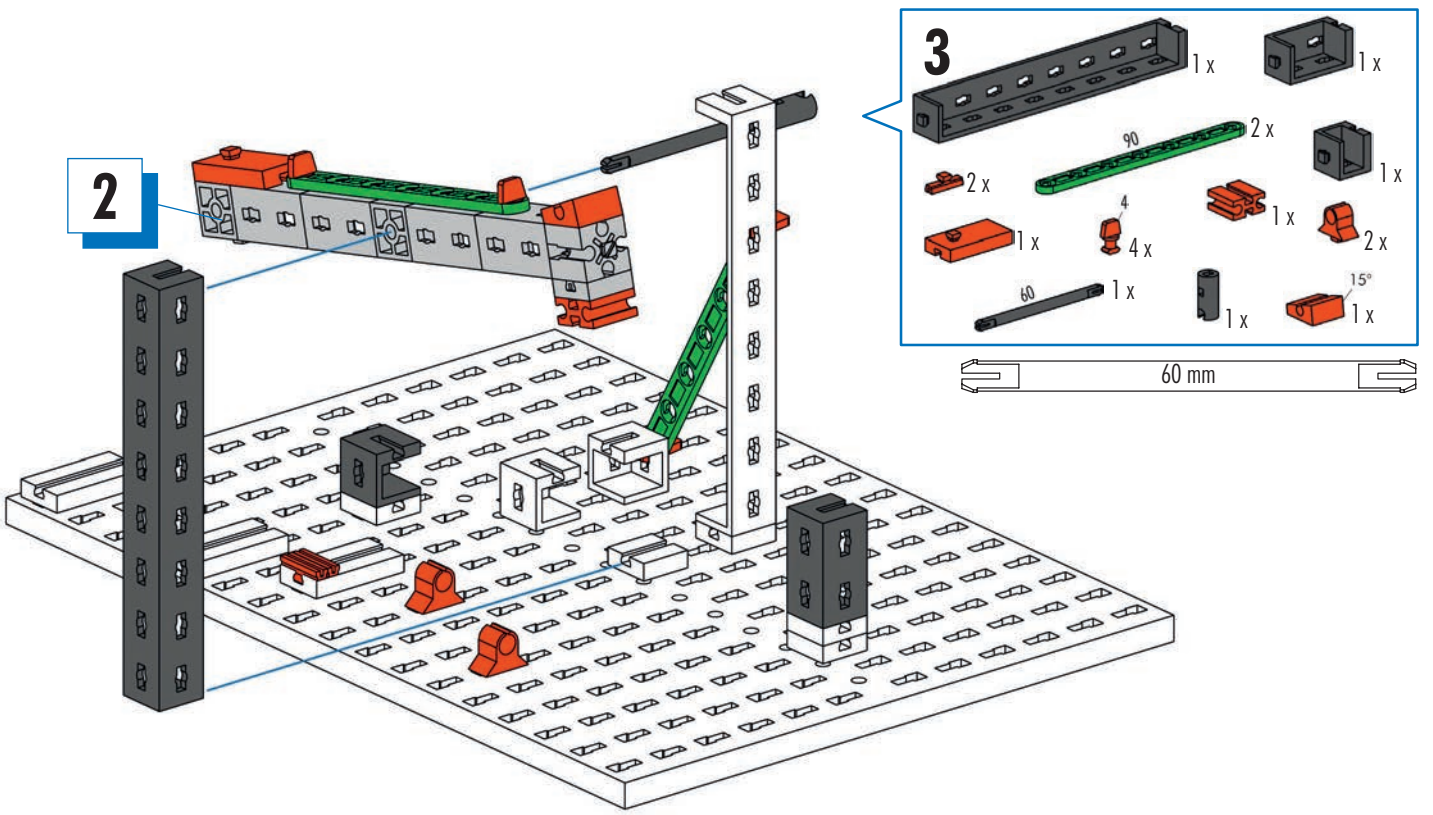


Solarpumpe mit Brennstoffzelle
Solar pump with fuel cell
Pompe solaire à cellule électrochimique

Zonne-energiepomp met brandstofcel
Bomba solar con célula de combustible
Bomba solar com célula a combustível

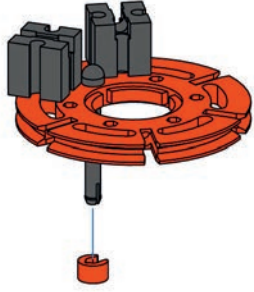
Pompa solare con cella di carburante
Солнечный насос с топливным элементом
配备燃料电池的太阳能泵





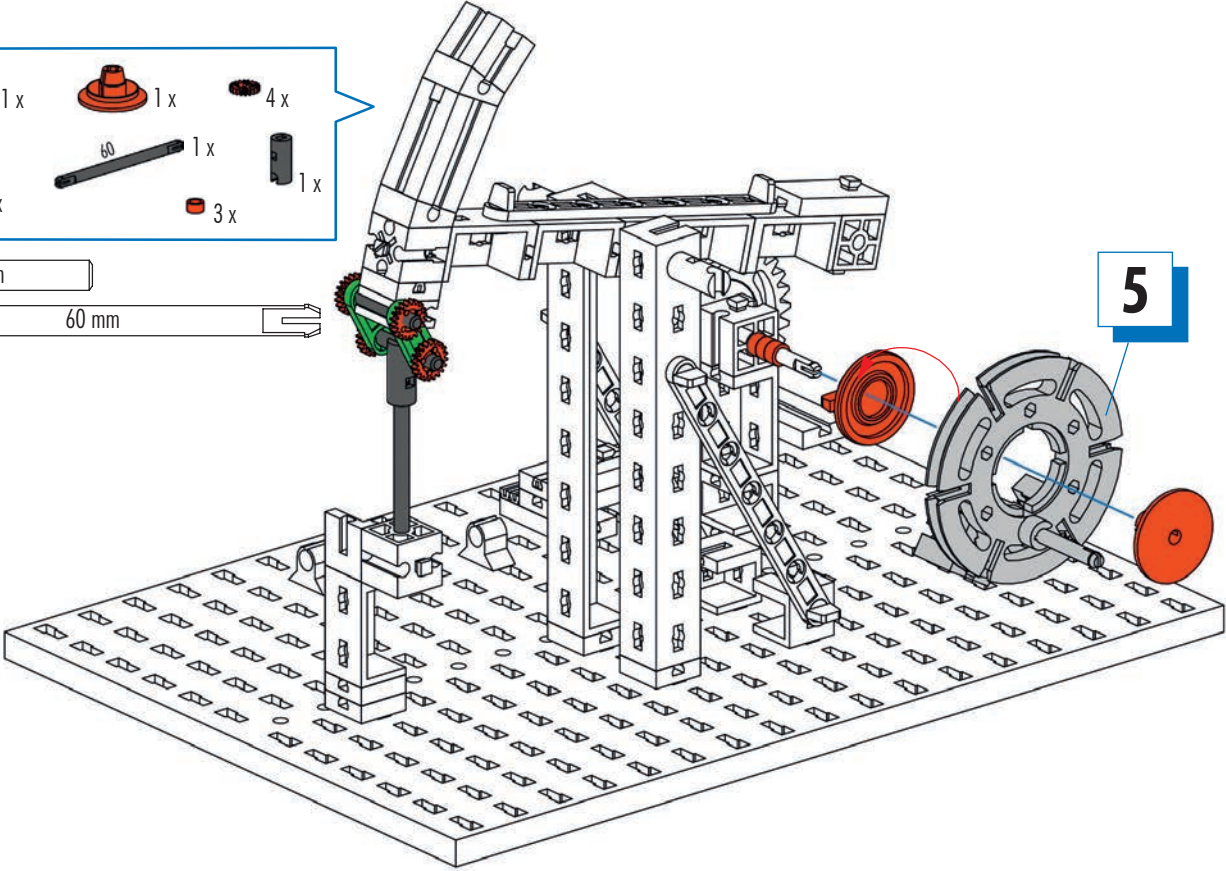
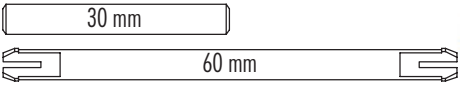
5

- 1x Orange Ring
- 1x Grey Pin
- 1x Red Pin
- 2x Grey Technic Bricks



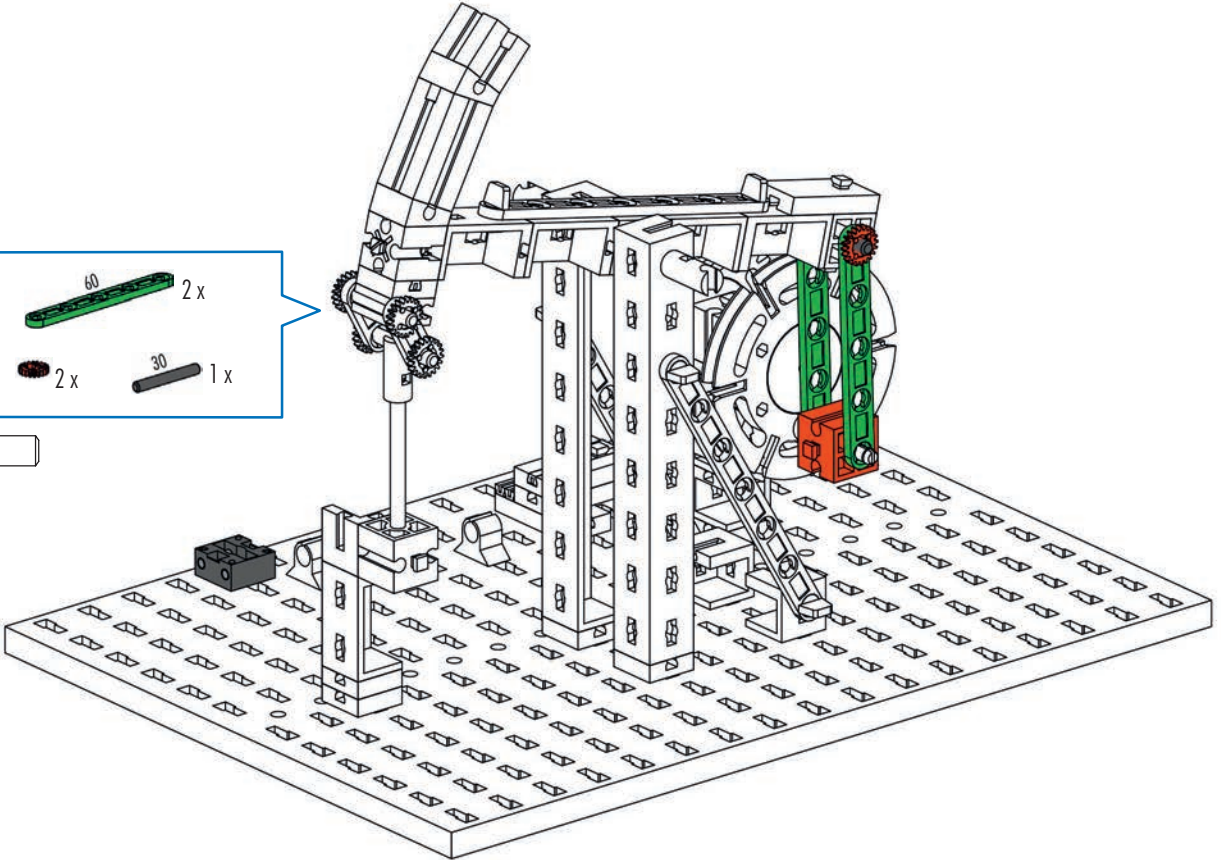
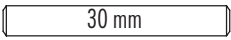
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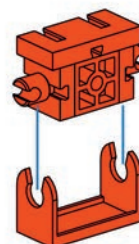
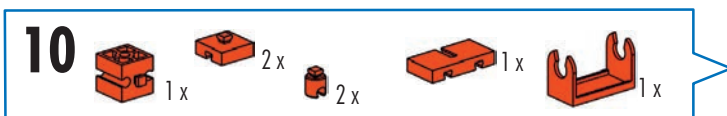
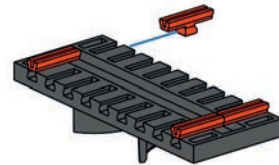
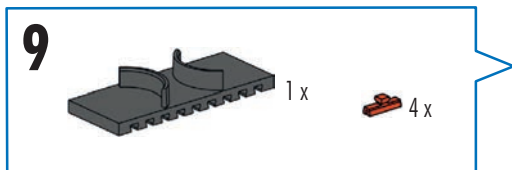
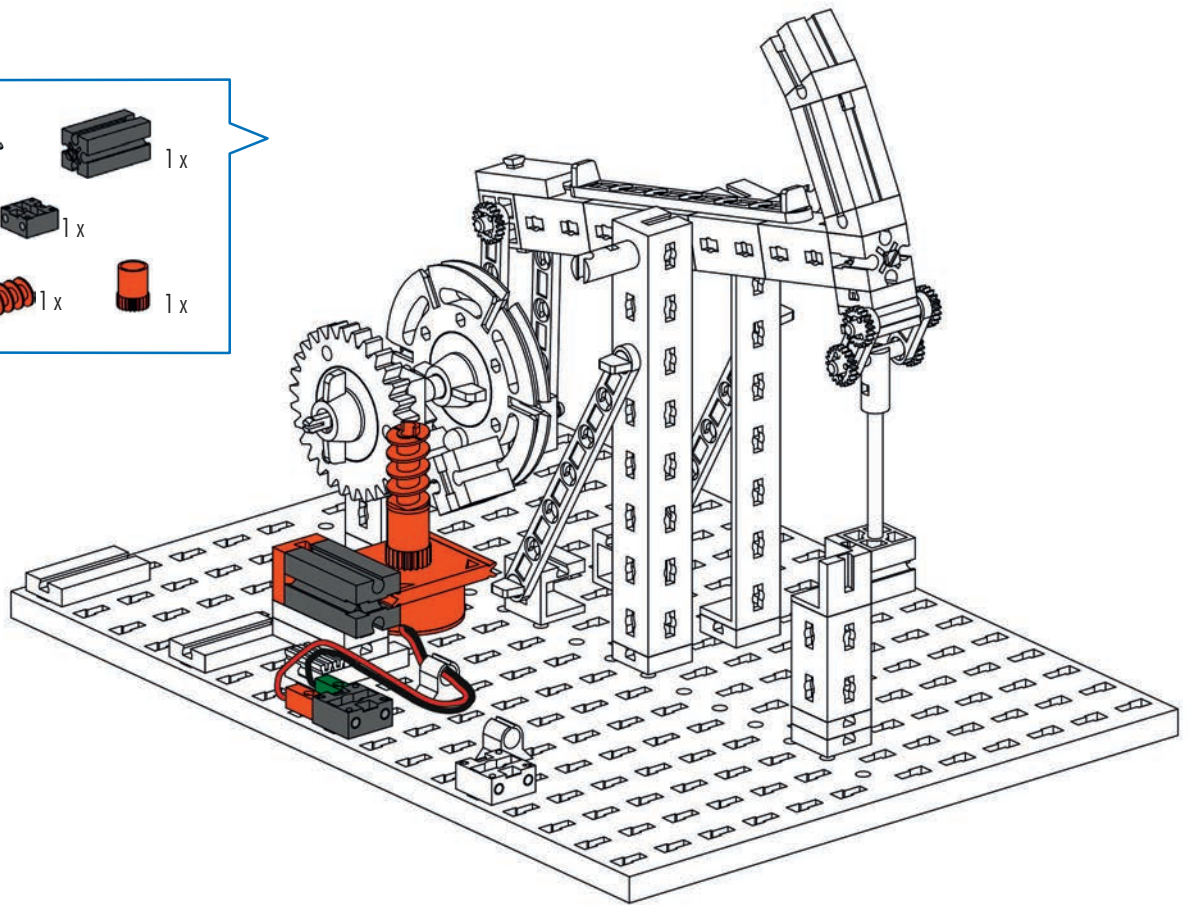
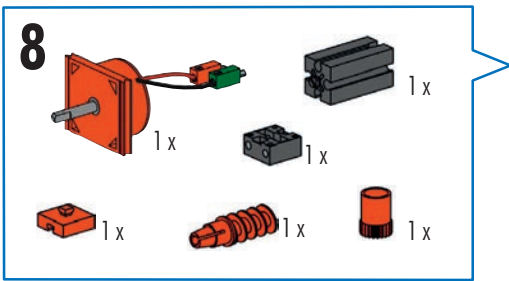
- 1x Orange Technic Pin
- 1x Orange Technic Pin
- 4x Black Technic Pin
- 2x Green Technic Pin (15)
- 2x Grey Technic Pin (30)
- 1x Grey Technic Pin (60)
- 1x Grey Technic Pin
- 3x Red Technic Pin

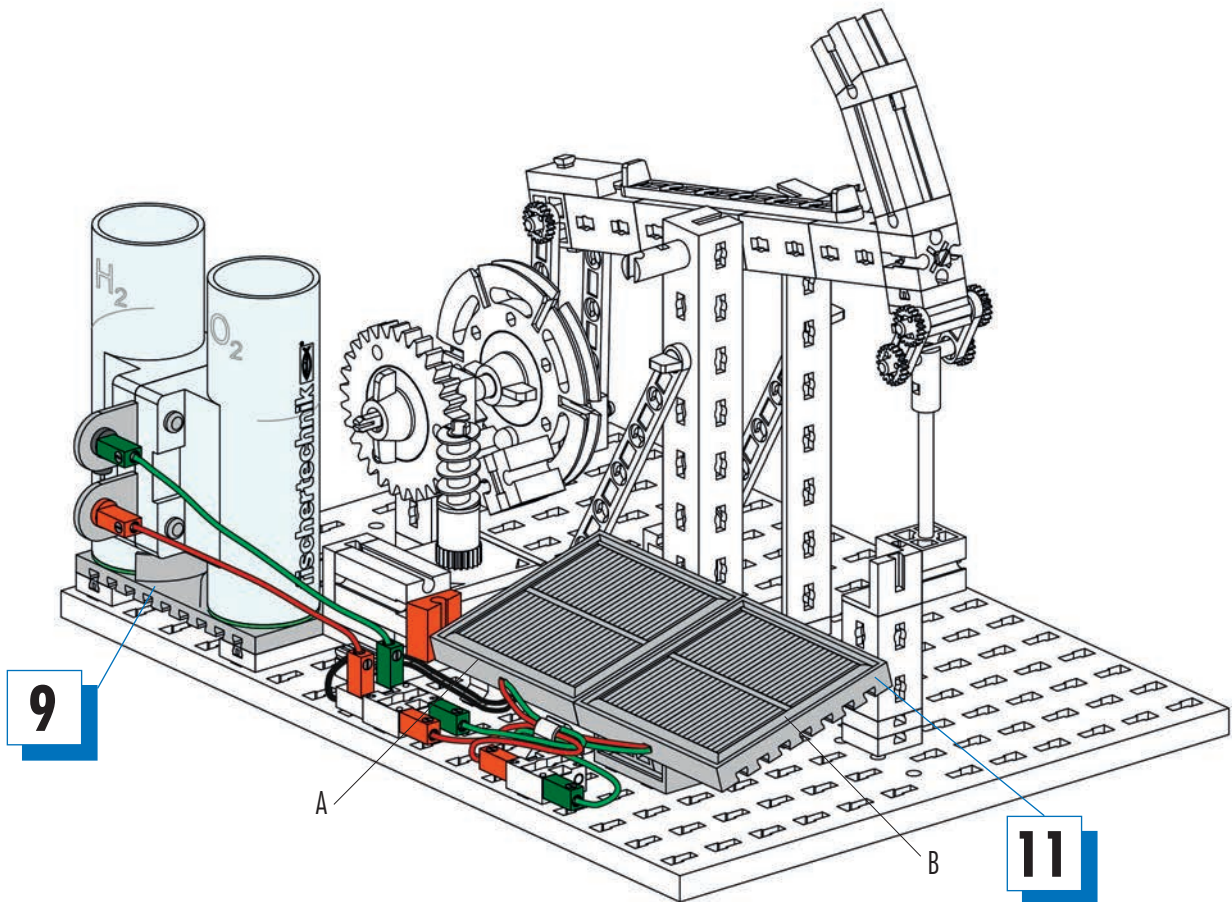
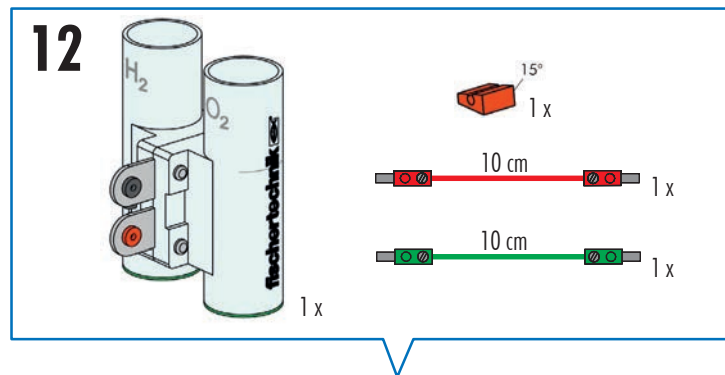
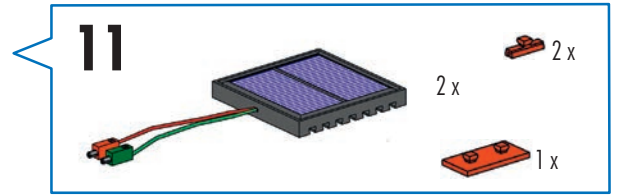
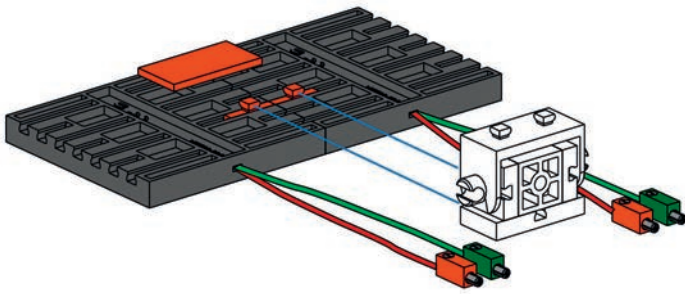


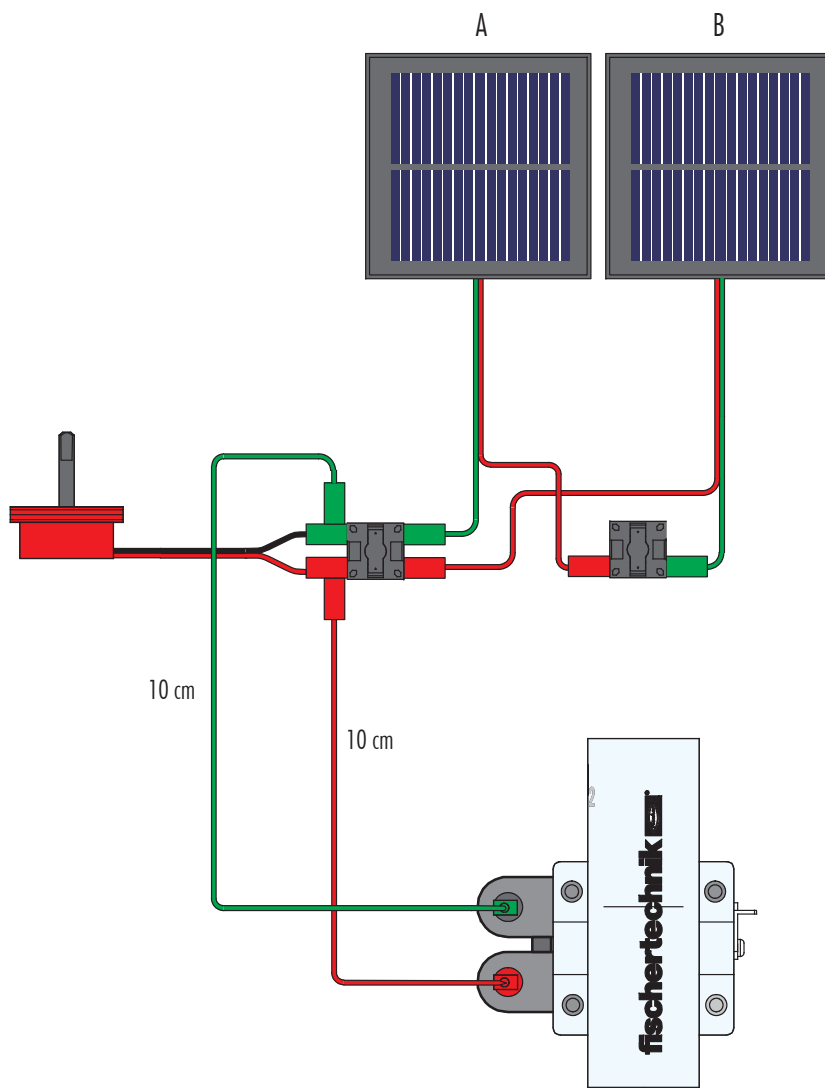
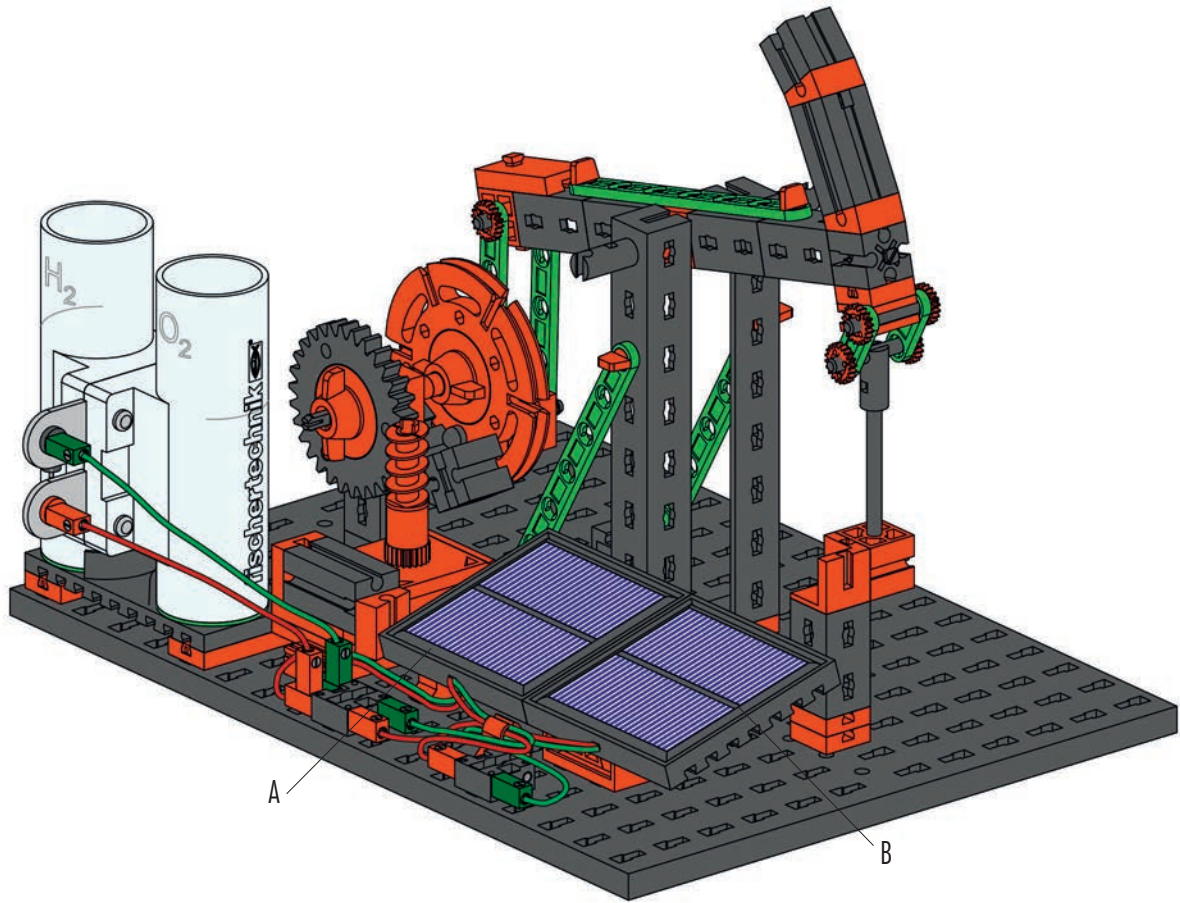
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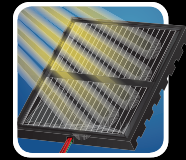
- 1x Orange Technic Brick
- 2x Green Technic Pin (60)
- 1x Grey Technic Brick
- 2x Black Technic Pin
- 1x Grey Technic Pin (30)











fischertechnik 

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Oeco Energy
Green Energy

14 MODELS