



fischertechnik 

Toy catalog

Understanding technology through play.

2025

OVERVIEW

60 years of fischertechnik	4
----------------------------------	---

JUNIOR 5+

Junior Max	5
Junior Pro	5

GAMES 7+

Slide Battle	6
Pinball	6
Labyrinth	7
Ping Pong Bowling	7
Build your own game	7

TECHNOLOGY 7+

Crane	8
Digger	8
Truck	9
Loader	9
Tractor	9
Universal Ultimate	10
Universal Max	10
Universal Pro	10
Mechanic + Static 2	11
Mechanics	11
Statics	11
Firefighter	12
Cable Car	12
E-Tronic	13
E-Tec	13
Strong Pneumatics	14
Pneumatic Power	14
Liebherr R 938	15

CHAIN REACTIONS 7+

Funny Machines	16
Crazy Reactions	16
Funny Reactions	16

MARBLE RUNS 7+

Dynamic S	17
Dynamic M	17
Dynamic L2	18
Dynamic XXL	18
Marble Competition	19
Marble Competition Battle	19
Marble Competition Sound	19
Marble Competition Booster	19

RENEWABLE ENERGIES 7+

Solar	20
Solar Power	20
H2 Fuel Cell Car	21
Green Energy	21

ROBOTICS 5+

Early Coding	22
Smart Robots Pro	23
Smart Robots Max	24
Robotics Hightech	26






MAKER 14+

Maker Kit Car	28
Maker Kit Omniwheels	28
Maker Kit Bionic	28

ACCESSORIES

LED Set	29
Motor Set XS	29
Motor Set XM	29
Box 1000	29
Accu Set	29
Power Set	30
Control Set	30
Creative Box Mechanics	30
Creative Box Basic	30

SYMBOLS

-  AGE Age recommendation
-  Number of pieces
-  Number of models
-  Listed components included
-  **eLearning**
Didactic accompanying material available online



60
1965
2025

60 years of UNDERSTANDING TECHNOLOGY THROUGH PLAY

with fischertechnik

What once began as an original Christmas idea for customers of the fastening specialist fischer has developed into a global success story - as an innovation leader for playful learning, education and industrial applications. With a clear focus on sustainability, fischertechnik not only brings technology to life, but also prepares people for the challenges of the future.

fischertechnik products stand for quality "Made in Germany": long-lasting, indestructible and sustainable. The high-quality building blocks have been combinable since their market launch. In addition, fischertechnik fulfills the strict EU toy guidelines and is still manufactured in Germany - a promise that is aimed at the values of generations.

Together into the future.

The 60th anniversary is not only an opportunity to look back on an impressive success story, but also to look ahead. With a clear focus on education and innovation, fischertechnik remains an indispensable brand for playful learning, hands-on experimentation and future-oriented technology.

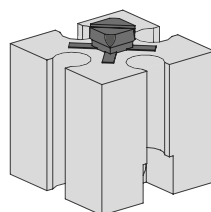
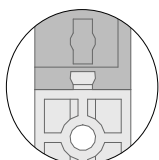
MADE IN
GERMANY

STEM
SCIENCE TECHNOLOGY ENGINEERING MATHEMATICS
INFORMATIK
NATURWISSENSCHAFT
TECHNIK

The fischertechnik building block

STABILITY

The pin and groove joint creates a strong connection between the building blocks.



VERSATILITY

Allows the construction of additional building blocks on all six sides.

CREATIVITY

There are endless creative opportunities for creations.

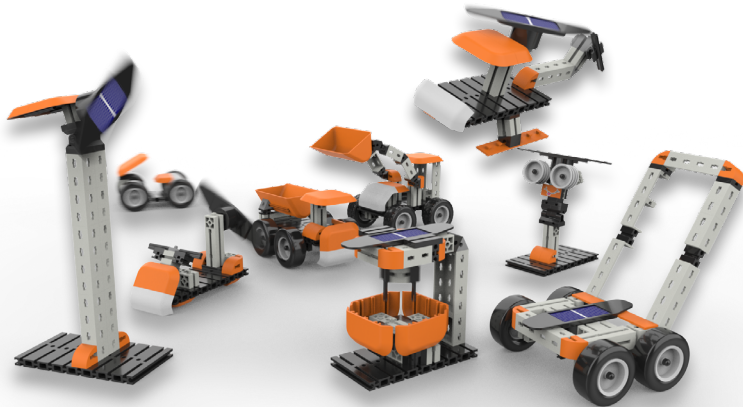


JUNIOR

The fun of playing with fischertechnik starts at the age of five. The JUNIOR line enables the first first contact with technology and how it works. Learning through play and constructing with quick success are the focus here.

Junior Max

With the fischertechnik Junior Max construction set, young engineers can discover technology and sustainability through play. The construction set includes 91 pieces for building 10 models, including a solar-powered figure and a windmill that demonstrate renewable energy, and realistic machines such as a helicopter, tractor, and lawn mower. In addition to technical understanding, the set promotes motor skills, creativity and spatial thinking.



- AGE from 5 years
- 10* 91*
- Solar rotor, shovel

Item No.	576101
EAN	4048962549249
Dim. (mm)	317x81x230



Junior Pro

With the fischertechnik Junior Pro construction set, little inventors can control their own vehicles, flying and driving them – however they want. Whether it's extinguishing fires with the fire engine and fire-fighting drone or transporting cargo with the freight car: a new, exciting adventure awaits with each of the seven models!



- AGE from 5 years
- 7* 81*
- Water sprayer

Item No.	576100
EAN	4048962549249
Dim. (mm)	280x65x180



* Illustrations and information on the number of parts and models not yet final at the time of catalog printing

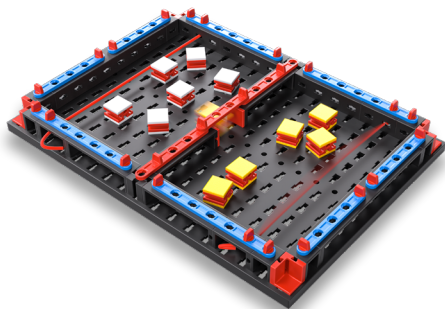


GAMES

Interactive fun for the whole family with fischertechnik GAMES including game instructions!

Slide Battle

Clear your own playing field before your opponent does - that sounds easy at first. But both players try to do it at the same time, of course! Stretch the rubber band, shoot the game pieces through the goal into the opponent's field and be as fast as possible... that doesn't sound so easy now, does it?



AGE from 7 years



1*



102

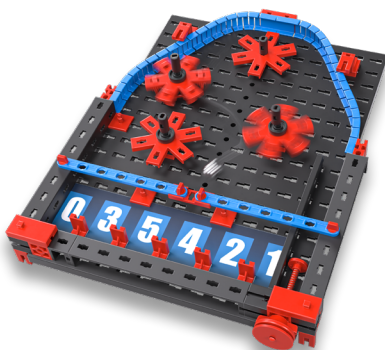
* Included as a game in the „Build your own game“ kit.

Item No.	569014
EAN	4048962492705
Dim. (mm)	280x65x180



Pinball

Insert the ball, tension the spring and off you go! The marble is shot onto the playing field. But be careful: It encounters various obstacles that influence its path across the field. In which number field will this path ultimately end and which players will collect the most points?



AGE from 7 years



1*



89

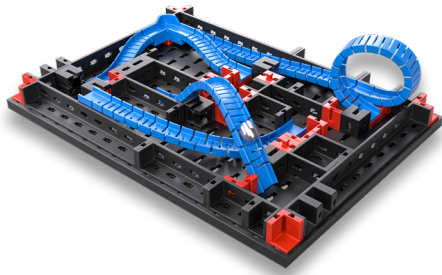
* Included as a game in the „Build your own game“ kit.

Item No.	569015
EAN	4048962492712
Dim. (mm)	280x65x180



Labyrinth

Who can prove their skill and manage to guide the marble safely through the maze? Whether alone or in a team, the aim is to balance the ball from the starting point over jumps and through the loop without it getting lost or even crashing.



AGE from 7 years



1*



61

* Included as a game in the „Build your own game“ kit.

Item No.	569016
EAN	4048962492729
Dim. (mm)	280x65x180



Ping Pong Bowling

With the right combination of skill and luck, this game can be decided. First and foremost, it's all about accurate aim and a precise throw. Once the table tennis ball lands in the funnel, the ball starts on its way towards the skittles waiting to be knocked over at the end of the track.



AGE from 7 years



1*



114

* Included as a game in the „Build your own game“ kit.

Item No.	569017
EAN	4048962492736
Dim. (mm)	280x65x180



Build your own game

One construction kit, eight different games - with Build your own game, there's never a dull moment! Roulette, Wheel of Fortune, Pinball & Co. can be played alone or with several people, creating lasting fun for the whole family. In addition to the assembly instructions, game instructions are also included.



AGE from 7 years



8



304

Item No.	564067
EAN	4048962458541
Dim. (mm)	320x80x230



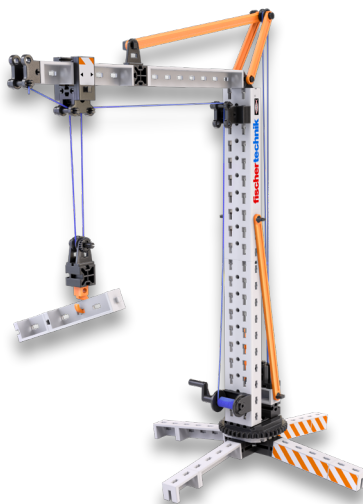


TECHNOLOGY

Expand technical knowledge and skills - from the age of 7. The models are realistically designed, simple to operate and particularly robust in construction - for a long-lasting play experience.

Crane

The fischertechnik crane brings a real construction site atmosphere directly into the children's room! Simply assemble it and you can turn and move the crane and lift various objects using the crank – just like on a real construction site! This crane is a must for every construction site.



AGE

from 7 years

1

88

Item No.	576103
EAN	4048962549270
Dim. (mm)	280x65x180



Digger

The fischertechnik digger is the highlight of every construction site. With its track belts, it can handle any terrain. Its movable shovel is perfect for digging construction pits or moving material. A must for anyone who wants to experience their own construction site adventures!



Front and back view:



AGE

from 7 years

1

125

Item No.	576104
EAN	4048962549287
Dim. (mm)	280x65x180



Truck

The fischertechnik truck with its movable dumper and large wheels can be used anywhere on your construction site. Simply assemble it and you're ready to load.



Front and back view:

AGE from 7 years



1



52

Item No.	576105
EAN	4048962549294
Dim. (mm)	226x65x149



NEW
from April

Loader

The fischertechnik front-end loader with its tilting loader can shovel and move even the heaviest parts on your construction site. The large wheels allow it to safely maneuver even through rough terrain.



Front and back view:

AGE from 7 years



1



73

Item No.	576106
EAN	4048962549300
Dim. (mm)	226x65x149



NEW
from April

Tractor

The fischertechnik tractor brings power directly to the construction site. With its large wheels, it moves safely over any terrain. All your building materials can be transported in its trailer.



Front and back view

AGE from 7 years



1



58

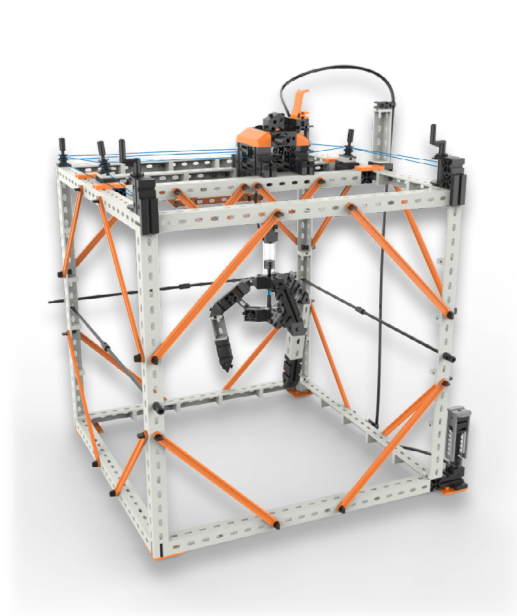
Item No.	576107
EAN	4048962549317
Dim. (mm)	226x65x149



NEW
from April

Universal Ultimate

Discover the Universal Ultimate – the largest set in the fischer-technik Universal series! With numerous large components, impressive kinematic models such as the gripper robot or the tripod gripper are created. Two pneumatic cylinders and suction cups enable fascinating movements – without any motors. Compete against your friends in exciting competitions. A creative and educational play and construction experience for all technology fans!



AGE from 10 years

10*

330*

NEW
from July

Item No.	576102
EAN	4048962549263
Dim. (mm)	460x80x390



* Illustrations and information on the number of parts and models not yet final at the time of catalog printing

Universal Max

The universal models of the Universal Max also shine with **new colors** and parts. Even more parts bring the realistic models such as racing cars, helicopters and forestry grapples to life in the children's room.



AGE from 7 years

10

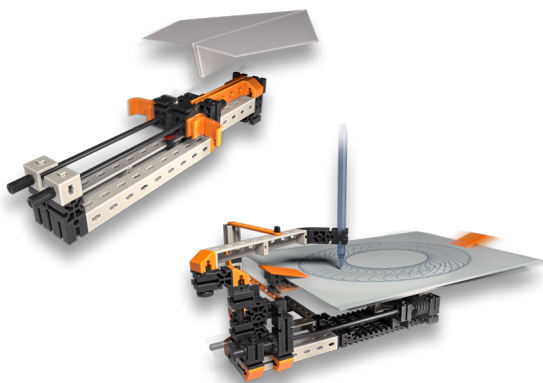
375

Item No.	571904
EAN	4048962516654
Dim. (mm)	465x80x320



Universal Pro

Fun gadgets such as the launching device for paper airplanes or the egg-painting machine teach the first basic technical principles. The variety of building blocks in **new colors** and innovative molded parts open up new design possibilities.



AGE from 7 years

10

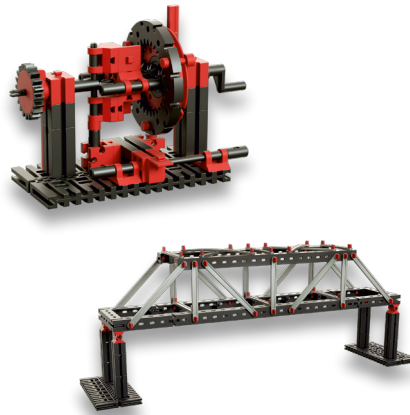
217

Item No.	571903
EAN	4048962516647
Dim. (mm)	320x80x230



Mechanic + Static 2

Mechanics and statics combined in one construction kit, for all future mechanical engineers, technicians or engineers. How does a cardan drive or a manual gearbox work? What is a planetary gearbox? How do you construct a stable bridge? Ideal addition: Accu Set



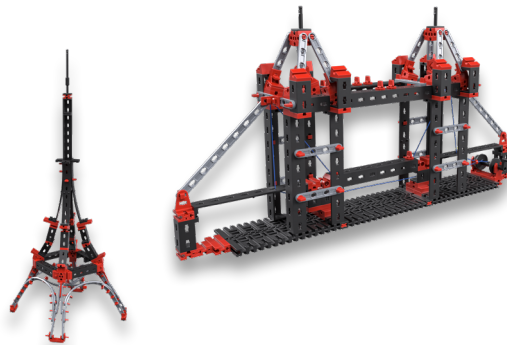
- AGE from 9 years
- 30 500
- + XS motor, battery holder for 9V block (battery not included)

Item No.	536622
EAN	4048962250299
Dim. (mm)	465x80x320



Statics

Why are buildings, bridges and other structures built the way we know them? How do they become stable and how can the stability gained be improved? Eleven impressive models in Statics provide these and other answers. From explanatory functional models to various bridges, towers and a crane, well-known structures such as the Eiffel Tower and Tower Bridge are also included.



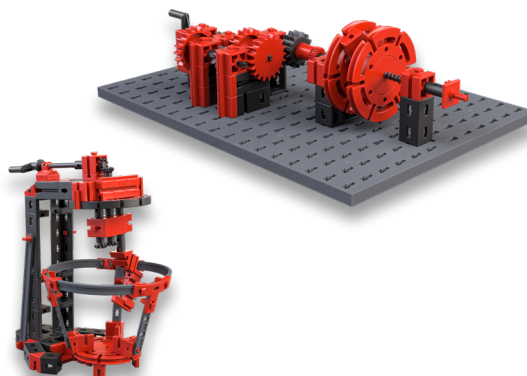
- AGE from 8 years
- 11 364
- + struts, angle brackets

Item No.	564071
EAN	4048962458589
Dim. (mm)	320x80x230



Mechanics

How does a hammer drill work, how do you build a clock gearbox and what do you need a planetary gearbox for? These and other elementary questions from the world of mechanics are answered by the Mechanics construction kit with 12 different models. Ideal addition: Motor Set XS



- AGE from 8 years
- 12 243
- + spur gears, bevel gears, ring gears, worms, axles

Item No.	569020
EAN	4048962492767
Dim. (mm)	320x80x230





Firefighter

Fire engines with extinguishing function! A conventional PET bottle is installed in the model and used as a water tank. An air pump is used to generate pressure in the water-filled bottle. When the valve is opened, water sprays from up to three nozzles from the connected fire hose. PET bottle not included.



- AGE from 7 years
- 4 322
- pneumatic cylinder, valves, adapter for PET bottle, play figure

Item No.	564069
EAN	4048962458565
Dim. (mm)	465x80x320



Cable Car

They travel through imposing mountain ranges, connect districts and entire cities, transport people and loads: cable cars. The three realistic fischertechnik models can be attached with vacuum pads and thus bridge distances and heights in the children's room.



- AGE from 7 years
- 3 269
- 2x 6m rope, vacuum pad, play figure

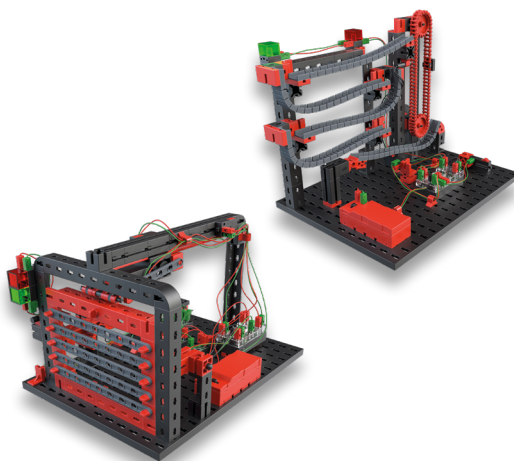
Item No.	564068
EAN	4048962458558
Dim. (mm)	320x80x230





E-Tronic

Simple electric circuit, series and parallel connection, electronic circuits with transistors, capacitors, resistors and LEDs. Step by step, this construction kit teaches the basics of electronics. The E-Tronics module, a controller with 16 fixed programs, has two motor outputs, three analog inputs for sensors and a potentiometer to control the speed of a motor.



AGE from 9 years

16

340

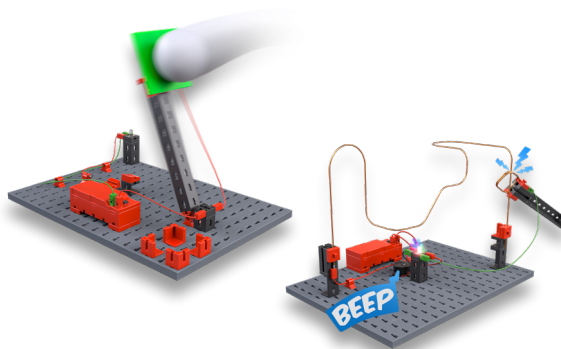
E-Tronic module, push-button, reed contact, XS motor, transistors, resistors, capacitor, LEDs, battery holder for 9V block (battery not included)

Item No.	559883
EAN	4048962424645
Dim. (mm)	465x80x320



E-Tec

From simple circuits with pole-reversing switches to series and parallel circuits, a continuity tester and either-or circuits - this construction kit teaches the most important concepts of electrics in an entertaining way. In addition, the technical aspects are illustrated by fun games of skill such as the „hot wire“ to encourage curiosity and creativity.



AGE from 8 years

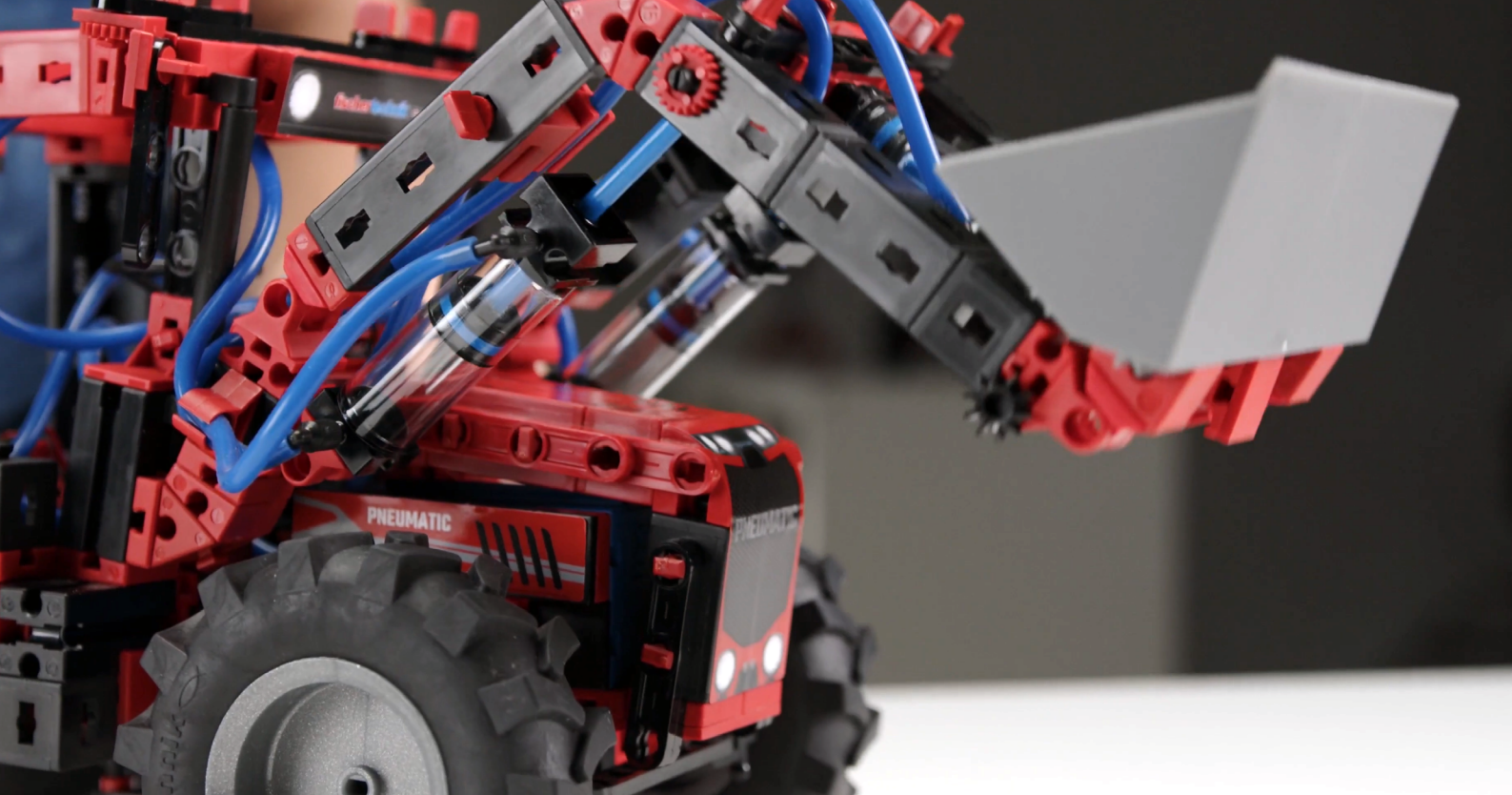
11

112

Rainbow LED, buzzer, aluminum wire

Item No.	571905
EAN	4048962516661
Dim. (mm)	320x80x230





Strong Pneumatics

Discover the basics of pneumatics using six realistic models such as log grapples, front loaders and rotary rakes. The modes of operation are illustrated by the included technical components such as compressor, pneumatic valves and cylinders and exhaust air throttle valve. Ideal addition: Accu Set



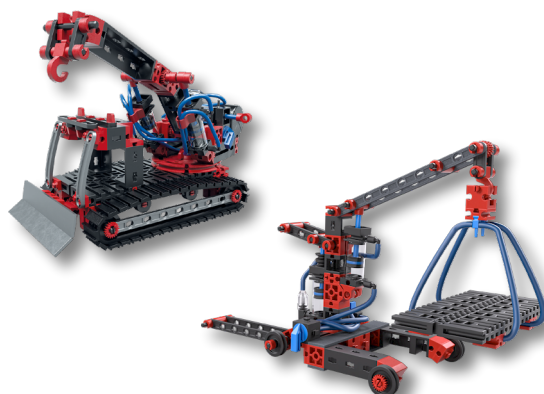
- AGE from 9 years
- 6 660
- Compressor, double-acting cylinders, exhaust air throttles, manual valves, battery holder for 9V block (battery not included)

Item No.	559876
EAN	4048962424577
Dim. (mm)	465x80x320



Pneumatic Power

The „little brother“ of the Strong Pneumatics (see above) is the Pneumatic Power. The air is pumped manually into an air reservoir. By actuating the manual valves, the compressed air reaches the pneumatic cylinders via the hoses. The included exhaust air throttle enables precise control of the cylinders.



- AGE from 8 years
- 5 210
- Pneumatic- and pump cylinders, manual and non-return valves, air accumulator, exhaust air throttle

Item No.	533874
EAN	4048962229721
Dim. (mm)	320x80x230



fischertechnik



X

LIEBHERR



Liebherr R938 Pneumatic Excavator

Experience the fascination of a detailed hydraulic excavator – with the fischertechnik Liebherr R 938 Pneumatic Excavator. With 689 high-quality parts, a pneumatic compressor, hand valves, and precise exhaust throttles, you can control impressively realistic movements.

Whether you're a child or an adult, discover the fun of constructing and experience technology up close.

Perfect for anyone who shares a love of detail and an enthusiasm for construction projects.



**NEW
LICENSE
THEME**

from July

AGE from 10 years



1



689*



Pneumatic compressor,
3x manual valve,
4x pneumatic cylinder,
3x exhaust air throttle

Item No.	576450
EAN	4048962551686
Dim. (mm)	460x80x390



* Illustrations and information on the number of parts and models not yet final at the time of catalog printing



CHAIN REACTIONS

The models in the three construction kits on the topic of „chain reaction“ can each be individually expanded with everyday objects and can be combined with each other. There are countless possibilities, from the individual model to the combination model of all three title models. Creative combinations are also possible with all construction sets from the Dynamic marble run line as well as lighting the courses with the LED set (see p. 17). Users can find didactic materials on the topic of „chain reaction“ online, as well as tutorials on construction.

Funny Machines



- AGE from 7 years
- 3 385
- Gauss cannon, ball catapult

Item No.	551588
EAN	4048962354225
Dim. (mm)	465x80x320

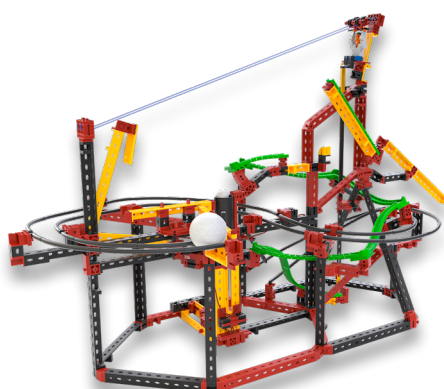
Crazy Reactions



- AGE from 8 years
- 3 428
- ropes for cable pulls, adapter for PET bottle (bottle not included)

Item No.	569018
EAN	4048962492743
Dim. (mm)	465x80x320

Funny Reactions



- AGE from 8 years
- 3 682
- ropes for cable car effects, ball cannon, play figure

Item No.	559890
EAN	4048962424713
Dim. (mm)	465x80x320

MARBLE RUNS

The marbles whizz down the action-packed courses on the flex-rails - sometimes through funnels and tubes, over seesaws, sometimes through sound tubes and LED lights. There is something for every taste and all Dynamic marble runs can be combined with each other.

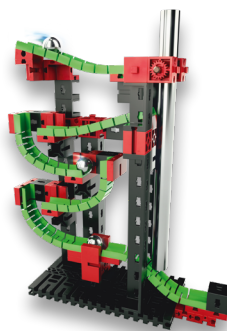


Dynamic S

In the title model, the marble whizzes through several 90° curves, over a seesaw and then touches the sound tube - „BING“! The marbles are collected at the end of the track and then placed back at the top.



28cm



AGE from 7 years

3

141

sound tube, seesaw

Item No.	536620
EAN	4048962250275
Dim. (mm)	230x80x320

Dynamic M

On their rapid way down, the marbles make the sound tubes ring. Once at the bottom, they are transported back up again by the manually operated chain elevator - motorization possible!
Ideal additions: Motor Set XS, LED Set



44 cm



AGE from 7 years

4

557

rotary funnel, sound tubes, changeover switch

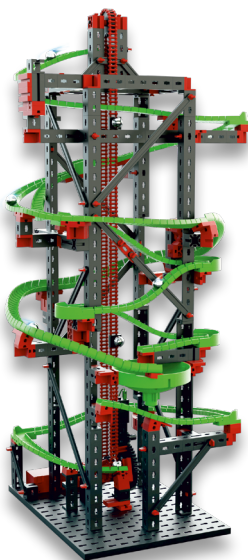
Item No.	533872
EAN	4048962229707
Dim. (mm)	465x80x320

Dynamic L2

With a track length of up to 4.5 m, the three different courses in this complete set offer unlimited marble run fun. The four high-speed flex tracks with raised side edges allow the marbles to travel at maximum speed around the curve. They race over the mechanical switch into different track circuits. They shoot through the changeover switch towards the rotary funnel or over a seesaw that releases a marble at the stop point. It returns to the pick-up point of the elevator via a loop and further chicanes. Once there, the marbles are transported back to the top via the motor-driven elevator. Ideal additions: LED Set, Accu Set or Power Set



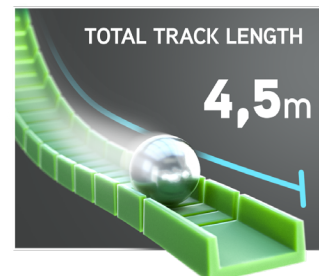
62 cm



- AGE from 9 years
- 7
- 778
- XS motor, high-speed flex-rails, changeover switch, rotary funnel, battery holder for 9V-block (battery not included)

Item No.	536621
EAN	4048962250282
Dim. (mm)	465x80x390

+ eLearning

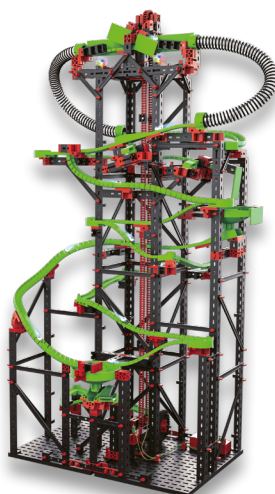


Dynamic XXL

Even higher, even faster and even more action: almost one meter high, with a track length of up to 5.6 m, with numerous functions and switches. After the start, the marbles race down through the loop, over the quarter pipe, through the jump loop and through further chicanes. Completely new track layouts are possible with the flexible hoses. The track layout can be determined using turnouts with turnout levers. In addition, the marbles can be stopped at a stop point and then released again. Once at the bottom, they are transported back to the top using the chain elevator operated by the included motor. Ideal additions: Bluetooth Control Set, LED Set, Accu Set or Power Set



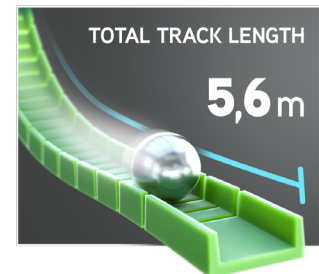
86 cm



- AGE from 9 years
- 3
- 1.365
- XS motor, rainbow LEDs, flex hoses, high-speed flex tracks, interchangeable points, rotary funnel, battery holder for 9V block (battery not included)

Item No.	544619
EAN	4048962316254
Dim. (mm)	465x80x390

+ eLearning





Marble Competition

Whether as a single player or in a team of up to four people: Marble Competition offers three exciting racing models for interactive and long-lasting fun! All participants choose a marble color and start daring overtaking maneuvers over high-speed flex profiles and wide 180-degree curves. Adjustable obstacles slow down or stop the marbles and keep the race exciting right to the end. The three Add Ons below can add further features to the courses!



- AGE from 8 years
- 3 697
- colorful marbles for multi-player mode

Item No.	564070
EAN	4048962458572
Dim. (mm)	465x80x320



Marble Competition Battle

Four additional, adjustable chicanes make the competition even more exciting. Up to four players can actively take part in the racing action.



- 1 77

Item No.	571898
EAN	4048962516593
Dim. (mm)	225x65x150

Marble Competition Sound

The three sound tubes not only add great sound effects to the models but also serve as adjustable obstacles on the course.



- 1 39

Item No.	571899
EAN	4048962516609
Dim. (mm)	225x65x150

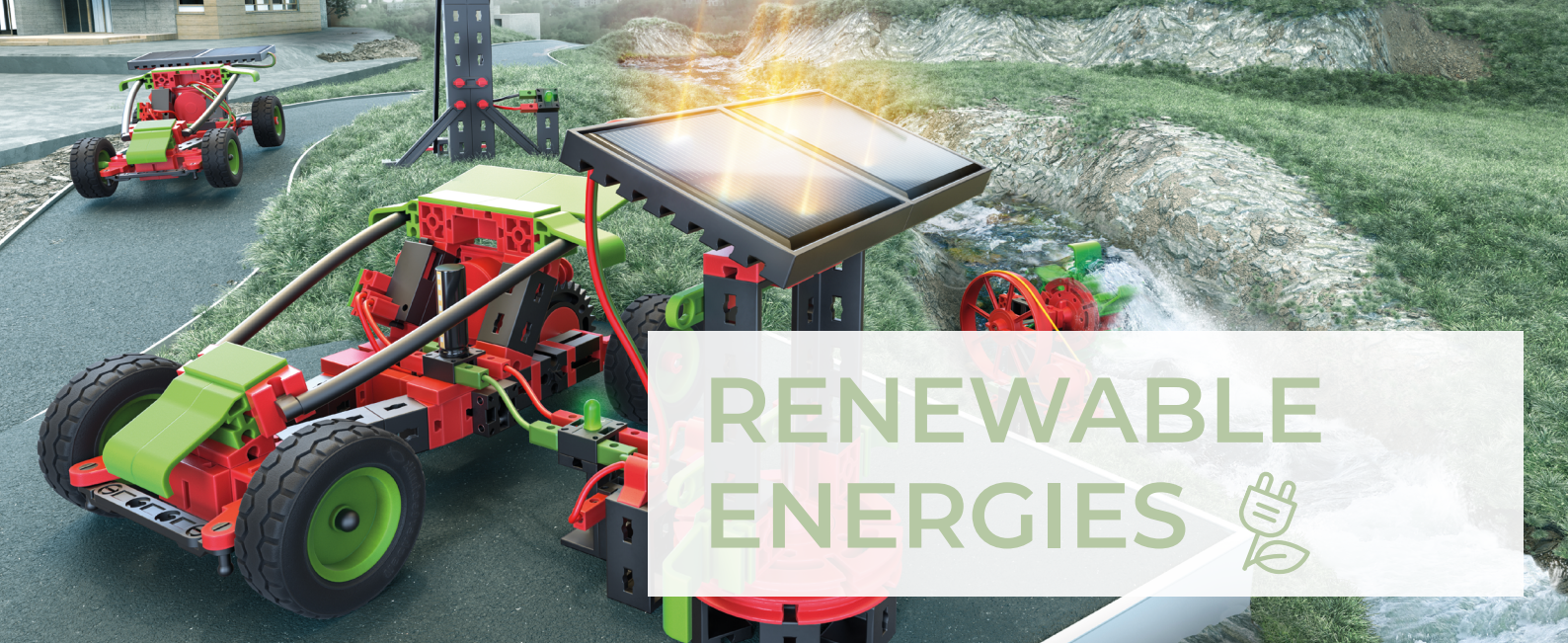
Marble Competition Booster

The marble must be shot upwards into the funnel - it can be built into the large model or played as a stand-alone model.



- 2 148

Item No.	571897
EAN	4048962516586
Dim. (mm)	320x80x230



Solar

Gain first experience with renewable energy at the age of 7. The solar rotor, a combination of solar cell and motor, is the heart of the three models and makes the propeller rotate using the power of the sun.



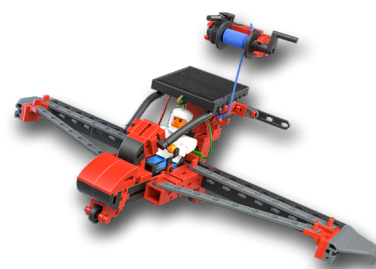
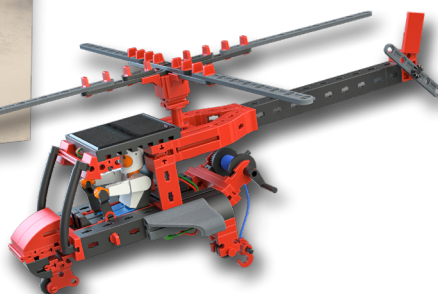
- AGE from 7 years
- 3
- 80
- solar rotor

Item No.	544616
EAN	4048962316223
Dim. (mm)	280x65x180



Solar Power

By generating electricity from solar energy with the help of a solar module, the helicopter, airplane, wind turbine and carousel really get going. Whether in the air or on land - the construction kit is ideal for discovering solar energy through play.



- AGE from 8 years
- 4
- 167
- solar module (1V), solar motor

Item No.	559882
EAN	4048962424638
Dim. (mm)	320x80x230



H₂ Fuel Cell Car

How does a fuel cell work and how can it be used to produce hydrogen? And how can it be used as a drive? The H₂ Fuel Cell Car construction kit brings this future technology directly into the children's room and provides the answers to these and other questions! The young explorers can bring the car to life and explore the world with the hydrogen they produce themselves. Ideal addition: Green Energy, for building two additional models.



AGE from 9 years



1



117



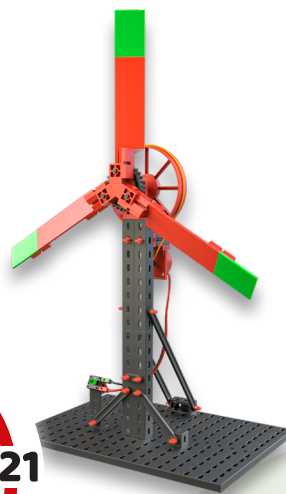
fuel cell with power supply unit 3V-.../1A, fuel cell motor

Item No.	559880
EAN	4048962424614
Dim. (mm)	320x80x230



Green Energy

Climate and environmental protection have become an integral part of everyday life - renewable energies are an absolute highlight topic, even in the children's room! 14 exciting models are built around the topics of generating, storing and using electricity from natural energy sources, which move through wind, water or sun and convey the applied technology in a playful way. The ideal addition is the H₂ Fuel Cell Car construction kit, with which two additional models can be built and operated with a fuel cell.



AGE from 9 years



14



339



solar modules (1V), Solar motor, Goldcap, LED

Item No.	559879
EAN	4048962424607
Dim. (mm)	465x80x320



ROBOTICS

Using easy-to-use graphical software, children can program and control fischertechnik models and robots with the help of a PC or tablet. Smart-phone control via app is also possible.

Early Coding

Writing your own program and bringing a robot to life is incredibly exciting and thrilling! The ready-made components in Early Coding make it easy to enter the world of computer science and robotics with lots of fun and enthusiasm. The two motors and sensors are already integrated in one block. This means: switch on, connect to the mobile device and get started! The simple graphical programming environment with ready-made examples is designed to be age-appropriate. There is also a teach-in function and the option to control the models manually.

AGE from 5 years



3



55



Fully assembled robot chassis (see below), course, battery compartment for 3x AAA batteries (battery not included)

Item No.	559889
EAN	4048962424706
Dim. (mm)	320x80x230



Robot chassis

- Fully assembled with integrated control unit, 2 motors, track sensor, 2 buttons, battery compartment
- Bluetooth 5.2 interface
- Attachment option for wheels and fischertechnik building blocks



First Coding App

- Child-friendly, simple programming of the models via tablet/ smart-phone
- For iOS and Android available free of charge





Smart Robots Pro

The complete beginner's package for children aged eight and over. Whether with the driving robot with obstacle detection, the carousel with flashing lights, the temperature control with fan or the alarm system: the entry into the world of programming is guaranteed to succeed. The control via the BT Smart Controller with four inputs for digital and analog sensors and two outputs for motors or lamps has a USB and Bluetooth 4.1 LE interface. The ROBO Pro Coding software enables fast, clear and easy-to-understand programming of the models.



AGE from 8 years



12



362

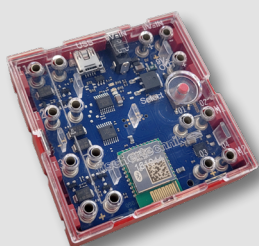


BT Smart Controller, XS motors with gear-boxes, LEDs, buttons, temperature sensor (NTC resistor), light barrier (phototransistor), reed contact, magnet, battery holder for 9V block (battery not included)

Item No.	569021
EAN	4048962492774
Dim. (mm)	465x80x320



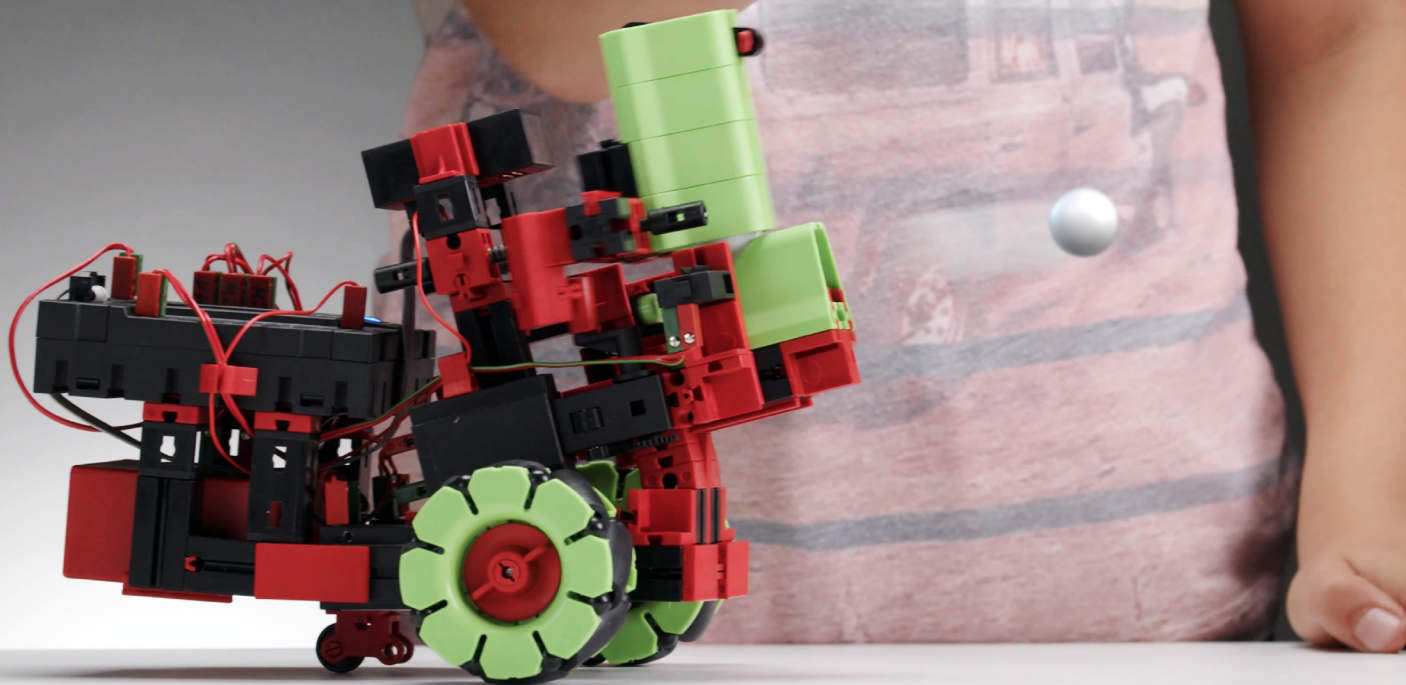
BT Smart Controller



- Processor - 32-bit Cortex M0
- Control unit that connects PC/ tablet and model
- 2 outputs for actuators
- 4 inputs for sensors
- USB and Bluetooth 4.0 interface



Information on programming with ROBO Pro Coding on page 27



Smart Robots Max

The RX Controller and the ROBO Pro Coding software bring nine exciting models to life. The graphical programming software is operating system-independent and can also be used on mobile devices. From simple entry-level models to driving robots and a fun dancing robot, there is something for everyone. A highlight in this construction kit are the Omniwheels, which are driven by four motors and thus enable movement in any direction! Other highlight components include the track sensor and the RGB gesture sensor.



AGE from 10 years

9 530

RX Controller, Omniwheels, Mini Motor, IR track sensor, RGB gesture sensor, button, USB connection cable and 6-pin extension cable, battery holder for 6 AA cells (batteries not included)

Item No.	564111
EAN	4048962458954
Dim. (mm)	465x80x320



RX Controller

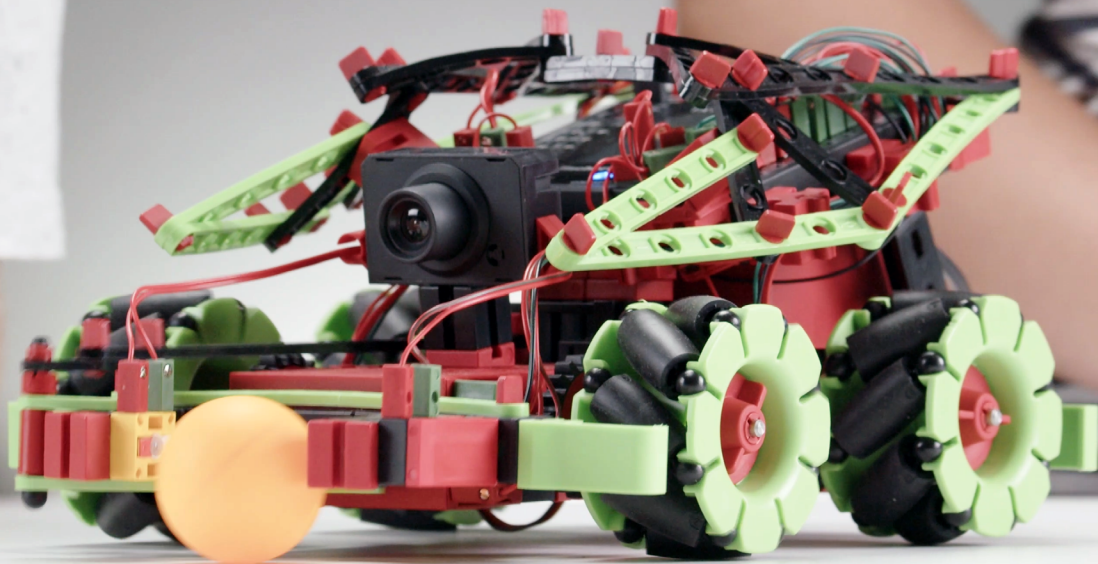


- Flat design, Dimensions: 90x90x17.5mm
- 8 universal inputs
- 4 motor outputs, infinitely variable speed, short-circuit-proof, alternatively 8 individual outputs, e.g. for LEDs
- USB 2.0 client: Mini USB socket for connection to the PC
- Bluetooth 4.0 LE interface

- 2x 6-pin header: I²C interface for sensors
- Power supply: 9V DC socket 3.45 mm or fischertechnik sockets 2.5 mm

Information on programming with ROBO Pro Coding on page 27





Robotics Hightech

Program like the pros with the complete Robotics Hightech set! Nine exciting models are waiting to be brought to life. The entry-level models offer an easy-to-understand insight into the world of robotics and programming. More advanced users can start directly with the high-end models, such as the painting or ball robot. One of the many highlights in this construction set are the omniwheels, which are driven by four encoder motors and thus enable movement in any direction. Also included is the fischertechnik camera with image processing, with which, for example, the soccer robot can recognize a ball - shot and goal! The fischertechnik TXT 4.0 Controller, together with the ROBO Pro Coding programming software, offers many features (see next page). The kit also includes a servo motor, an infrared track sensor and an ultrasonic distance sensor as additional actuators and sensors.

AGE from 10 years



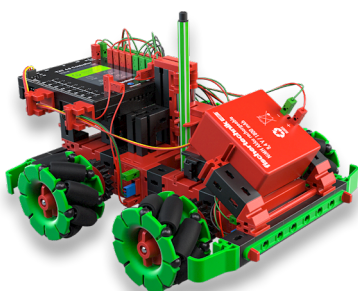
9



580



TXT 4.0 Controller, USB camera (1 MP), encoder motors, servo motor, ultrasonic sensor, button, LEDs, IR track sensor, USB connection cable, battery and charger



Item No.	559895
EAN	4048962424768
Dim. (mm)	465x80x320



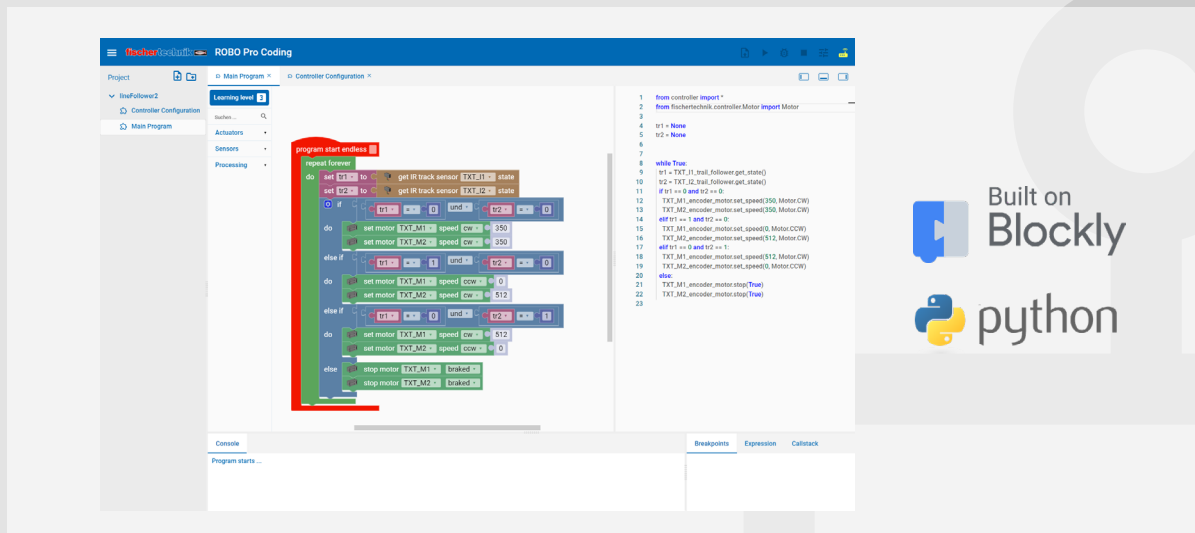
Information about
TXT 4.0 Controller
& Software
ROBO Pro Coding
on the following page



ROBO Pro Coding

In its multilingual programming environment, the ROBO Pro Coding software offers the option of graphical programming as well as text-based programming via Python. The software runs on computers with Windows, Linux or MacOS as well as on mobile devices with Android or iOS. Users can choose from the different learning levels „Beginner“, „Advanced“ and „Expert“ in order to work at the appropriate level of difficulty. Program examples are available. Self-created programs can be saved locally on the device or online in the cloud. This enables versioning and the exchange of created programs in the cloud storage between users. Actuators and sensors can be tested quickly using the interface test.

Available free of charge for mobile devices (Android/ iOS) and PC (Windows/ macOS/ Linux).



TXT 4.0 Controller

The TXT 4.0 controller offers plenty of features with its 512 MB RAM and 4 GB eMMC memory, three servo outputs and a capacitive touch display that supports swipe gestures. The improved WLAN and Bluetooth module offers the right wireless interface for numerous applications. Another interface is the USB host port, which can be used to connect the fischertechnik USB camera or USB sticks, for example. Up to eight additional controllers can be connected to one controller as extensions. Thanks to the slim housing, the controller can be perfectly integrated into the models. Firmware updates are automatically downloaded via the cloud so that you are always up to date, while your own programs are retained.



- Processor: Arm® dual Cortex®-A7 650 MHz + Cortex®-M4
- Memory capacity: 512 MB DDR3 RAM, 4 GB eMMC
- Memory expansion: Micro SD card slot
- Color touch display: 2.4", 320x240 pixels, capacitive, allows swipe gestures
- Flat design - dimensions: 90x90x17.5mm
- 8 universal inputs: digital/analog 0-9VDC, analog 0-5 kΩ
- 4 fast counting inputs: digital, frequency up to 1kHz
- 4 motor outputs 9V/250mA (max. 1 A): Speed infinitely variable
- 3 servo outputs 5V (max. 2A), short-circuit proof
- Control also via voice recognition app (Android/ iOS) possible

MAKER

The maker construction kits provide the basis for innovative projects in the maker scene. Each set contains a basic chassis for mobile robots, ideal for creative constructions in makerspaces and FabLabs. The maker kits do not contain controllers.



Maker Kit Car



- AGE from 14 years
- 1 119
- Encoder motor, differential gear, stub axle steering incl. servo motor, .stl data (3D print) available for brackets/connections of common developer boards

The car chassis as a basic model not only provides a stable basis, but also enables individual adaptations and extensions. The basic model is available as an example in the fischertechnik Design Studio.

Item No.	571900
EAN	4048962516616
Dim. (mm)	320x80x230

Maker Kit Omniwheels



- AGE from 14 years
- 1 201
- Encoder motors, 4 omniwheels, steel axles, gearbox in front of each omniwheel, .stl data (3D print) available for brackets/connections of common developer boards

The omniwheels on the basic model of this driving robot enable unique locomotion in any direction. The basic model is available as an example in the fischertechnik Design Studio.

Item No.	571901
EAN	4048962516623
Dim. (mm)	320x80x230

Maker Kit Bionic



- AGE from 14 years
- 1 161
- 8 Servomotors incl. fischer-technik brackets, .stl data (3D print) for brackets/connections of common developer boards available

Walking robot chassis with servo motors, brackets and flat platform for your own super-structures. The basic model is available as an example in the fischertechnik Design Studio.

Item No.	571902
EAN	4048962516630
Dim. (mm)	320x80x230

ACCESSORIES

For optimum supplementation.

LED Set

When it comes to adding even more lights, the LED set is just the right solution! The construction kits can be upgraded even further with a new glow and additional lighting effects. The set includes two rainbow LEDs that flash in different colors and frequencies, two white LEDs and a battery holder (batteries not included).



40

Item No.	533877
EAN	4048962229752
Dim. (mm)	225x65x150

Ideal addition: Accu Set or Power Set

Motor Set XS

Thanks to its compact dimensions, this motor can be installed almost anywhere. In addition to building blocks, gear parts and gears, the set also includes a safety battery holder with integrated pole reversing switch for 9V block batteries (battery not included). Performance data: Voltage 9V-..., max. power 1.0 W at 6000 rpm



45

Item No.	505281
EAN	4048962069426
Dim. (mm)	225x65x150

Motor Set XM

High performance geared motor in compact plastic casing with numerous possibilities for attachments. With many toothed gears, axles and gearbox parts. Performance data: Voltage 9V-..., max. output 3.0 W about 340 RPM. Additionally required: Accu Set or Power Set



40

Item No.	505282
EAN	4048962069433
Dim. (mm)	225x65x150

Box 1000

Practical storage box with eight sorting trays and 32 sorting bars. The lid is also the large 390 x 270 mm base plate.



42

Item No.	30383
EAN	4006209303832
Dim. (mm)	390x95x270

Accu Set

Microcontroller-controlled charger that reliably protects against overcharging. Very short charging time, max. 2 hours. Powerful NiMH battery pack with short-circuit protection, 8.4V/1800 mAh.



charger & battery pack in one

Item No.	34969
EAN	4006209349694
Dim. (mm)	225x65x150

Power Set

Power supply unit and stepless power controller. The power supply from the socket for all fischertechnik models.
Power supply unit performance data:
Voltage 9V-..., 2.5A
Power controller performance data:
Adjustable output 1A max., additional output with 9V-..., 1A max. (not adjustable), both outputs short-circuit-proof with overload protection



power supply & control unit in one

Item No.	505283
EAN	4048962069440
Dim. (mm)	225x65x150

Control Set

The Control Set enables fischertechnik models to be controlled remotely via the Bluetooth Control App using a smartphone or tablet with a long range of up to 10m. The receiver has three motor outputs as well as a servo output for a stepless steering angle and stepless speed control. One servo is already included in the set. Up to two receivers can be operated with the app, which allows a wide range of applications. Thanks to Bluetooth technology, it is possible to use several control sets in one room without them interfering with each other.



receiver, servo

Item No.	563931
EAN	4048962457438
Dim. (mm)	225x65x150

Required: Bluetooth Control App, Accu Set or Power Set or 9V battery holder

Creative Box Mechanics

Filled to the brim with cogwheels, gear racks, axles, worms and other drive elements, the Creative Box Mechanics is ideal for setting almost any mechanism in motion. For organized storage, the set is supplied in two stackable plastic trays with flexible with flexible sorting bars. The base plate serves as the cover, no assembly instructions are included.



290

Item No.	554196
EAN	4048962390506
Dim. (mm)	269x79x193



Creative Box Basic

Equipped with numerous round building blocks, angle blocks, building plates, structural elements and other „basics“, completely new models can be created or existing ones can be extended according to individual wishes. Another highlight is the storage box with eight sorting inserts, which provide flexible subdivision. The base plate serves as the cover, no assembly instructions are included.



630

Item No.	554195
EAN	4048962390490
Dim. (mm)	393x103,5x273



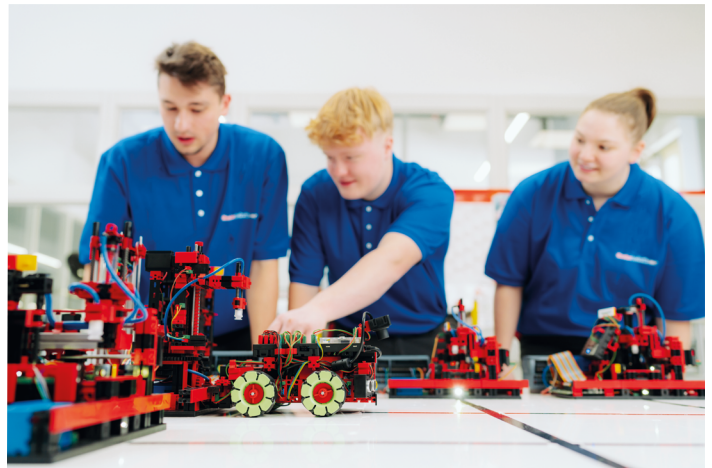
Teaching & Learning

Discovering, understanding, constructing, building, learning: this is what drives us - throughout our lives. We at fischertechnik also call it „understanding technology through play“. For over 55 years, we have been creating components, construction kits and building systems for children, schoolchildren and students that are suitable for every age group and type of school, arouse different interests, promote talent and encourage sustainable learning. Many teachers at schools, colleges and universities around the world are aware of the motivating and explorative effect that fischertechnik has on children, schoolchildren and students. Our construction kits found their way into state and non-state classrooms early on via the toy market. The fischertechnik education systems continue to build on this success story. With growing success through ever new curriculum-relevant topics and ideas. Particularly important for the future: fischertechnik systems combine the world of conventional technology with the digital world. This is easy to see with mechanics and robotics, one is no longer possible without the other.



Simulate

fischertechnik and simulation - an ideal combination that many engineers and experts already rely on today! With fischertechnik, complex processes can be simulated realistically. In industry, fischertechnik can be used in a variety of ways with compact training models that have already been created. The focus here is on reproducing and simulating real events. fischertechnik training models are ideal for training, simulation and demonstration purposes. With fischertechnik, much of what is important in a Smart Factory can already be simulated and tried out today - and above all demonstrated in a comprehensible way. The fischertechnik learning factory and all other training models are supplied ready-built and can be operated in 24V industrial standard. The focus is on simulation and demonstration and the comprehensible presentation of digitally networked applications in a real production environment.



fischertechnik 

fischertechnik GmbH
Klaus-Fischer-Str. 1, 72178 Waldachtal
Germany
Phone +49 74 43/12-42 93,
Fax +49 74 43/12-45 91
Email: info@fischertechnik.de

www.fischertechnik.de

Errors, technical and product range changes reserved. Liability for printing errors and defects is excluded. With our texts we address m/f/d equally. Catalog not valid for USA.

