

Building Blocks for Life

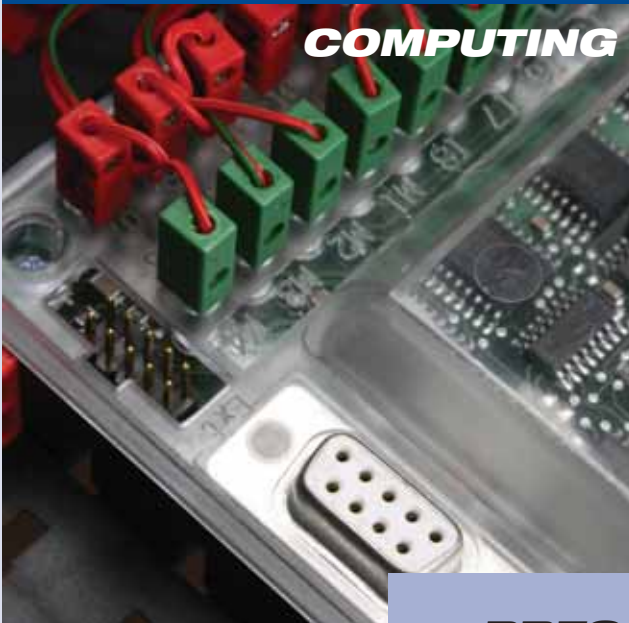
fischertechnik 



ADVANCED



PROFI



COMPUTING



INDUSTRY

PRESCHOOL

SCHOOL

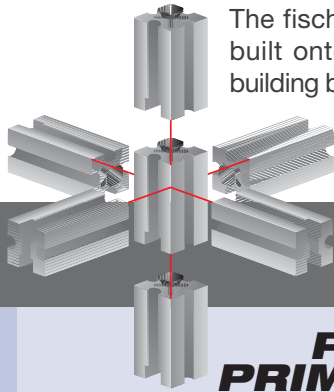
**VOCATIONAL
SCHOOL**

UNIVERSITY

INDUSTRY

Learn about technology while playing

THE BASIC BUILDING BLOCK AN INGENIOUS IDEA



The fischertechnik basic building block can be built onto on all six sides. This "many-sided" building block forms the basis for all fischertechnik construction sets, which are put together according to age and

capabilities of the pupils and students. These sets allow you to experience the real technology and learn it by playing.

All of this taken together forms a logical concept where one fits with the other. Building block for building block.

OVERVIEW:

PRE-/ PRIMARY SCHOOL

Children gain initial experience with technology and the way it functions at five years of age. The motto of the Junior Line is learning by playing and building with fast success.

The Universal II construction set provides initial basic knowledge about mechanics. Comprehensive and easy to understand assembly instructions describe the construction of the 48 models. The technical functions are quickly comprehended and understood.

Applications (A)

Dump truck, cargo vehicle, tow truck, truck crane and portal crane.

Applications (B)

Fan, centrifuge, beam and scales, scales with sliding weight, kitchen appliance, sewing machine, clamp, lifting platform, crane, oil pump, lifting tackle, spindle press, die and planing machine.



(A) Item. No.: 16 551



(B) Item. No.: 93 290

SCHOOL/SECONDARY LEVEL

MECHANICS

Topics: electrical motor, worm gear pair, toothed gearing, steering, mandril screw spindle, coupled gear, lever, rope pulleys and lifting tackle.

Applications

Vehicles, vehicles with steering, crank gear, gearbox, planetary gear, bevel gear unit, toothed gearing, differential, lathe, barrier, beam and scales, four-bar chain and windshield wiper.



Item. No.: 93 291

STATICS

Topics: stability, struts and braces.

Applications

Table, double ladder, high hunting seat, girder bridge, bridges with underbeam, bridge with upperbeam and crane.



Item. No.: 93 291

PNEUMATICS

Topics: make things move with air. Producing compressed air with a compressor. The relation between force, area and pressure. Pneumatic cylinder and valves.

Applications

Compressor, lifting platform, catapult, sliding door, turntable with press, linear feed, excavator, pipe layer and front-end loader.



Item. No.: 77 791

RENEWABLE ENERGIES

It doesn't matter how demanding the models become because you can always return to the components from other fischertechnik sets. To help you with the construction and discovery of the fascinating fischertechnik world, there is a comprehensive and

easy to understand set of assembly instructions. In addition, there are worksheets and instructional activity booklets with lots of background information, tasks and solutions.

SCHOOL/VOCATIONAL SCHOOL/UNIVERSITY/ INDUSTRY

UNIVERSITY/ INDUSTRY

ELECTRICAL TECHNOLOGY

Topics: regenerative energies from wind, water and the sun. Production, storage and use of electrical energy.

Applications
Oil pump, solar cell tracking, solar vehicle, crane, rotating swing, wind power system, water turbine and hammer drivers.



Item. No.: 57 485



Item. No.: 91 083

COMPUTER SCIENCE/MECHATRONICS

Topics: electrical circuits, electro-mechanical controls with electronics, AND/OR circuit, series and parallel connection

Applications
Continuity tester, elevator, turning signal, control of traffic lights, alarm system, parking garage barrier, punch press, hand dryer, flashlight, stairwell lighting, refrigerator lights, building block dispenser, garage door and tower with warning blinking light



Item. No.: 41 863



Item. No.: 93 292



Item. No.: 96 782

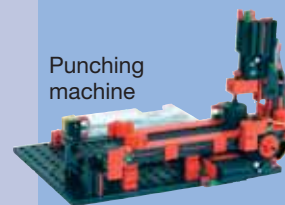


Item. No.: 34 948

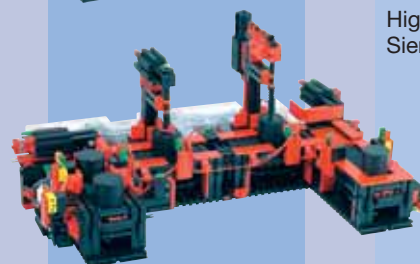
TRAINING MODELS

Topics: automation technology, control technology, programming with the help of finished function models

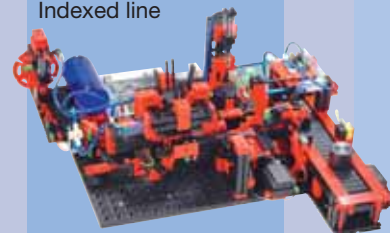
Available with 9V standard voltage or in 24V industry standard for connection to commercially available PLC



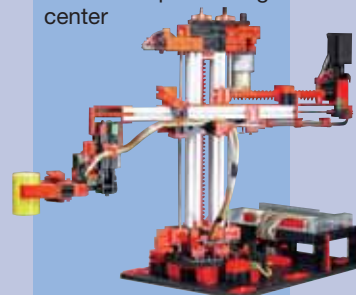
Punching machine



Indexed line



Pneumatic processing center



3-D Robot

SIMULATION

Proven functional models equipped with industrial controls and software to plan, develop and test industrial processes. They are employed worldwide in the areas of training, development and presentation.



High-rack warehouse Siemens

Support and Systematics

The instructional construction sets from fischertechnik are specially designed for use in technical instruction and in technical facilities for the basic and secondary level. Topics: mechanics, statics, electrical technology, regenerative energies and measuring, controlling, regulating (computer science, mechatronics and computing). Supported by in-

structional books and worksheets, which are excellently prepared under the supervision of experienced teachers, these materials make it simpler for the teacher and the pupil to communicate and understand the contents of the instruction. In addition, there are intelligent storage systems that provide order and reliability for the everyday things at school.

INSTRUCTIONAL MATERIAL

How does a gearbox work? How is the movement of a windshield wiper produced? How do you design a stable bridge? How do you program and control a mobile robot? These and additional questions from the areas of mechanics, statics, electronics, computer science and robotics are answered in a graphic and easily understandable manner using our didactical activity booklets.

The activity booklets are in black and white and thus they can be reproduced as desired for instruction without any loss of quality. Additional worksheets can be downloaded from the fischertechnik Web site and with the thematically related tasks, these are an additional instrument to provide understanding of the corresponding instruction in a simple and precise manner and to test the learning success.



Assembly instructions and sorting suggestion for sorting box 500



Activity Booklet



Work Sheets

WELL-THOUGHT-OUT STORAGE

Every fischertechnik building block has its place in the very practical and well-thought-out storage system.



The sorting boxes in the construction sets create order.

Recommended storage (available separately)
Sorting suggestion contained in all assembly instructions
PROFI and COMPUTING.



Sorting box 500
Item. Nr.: 94 828

Base Plate
258x186 mm
Item. Nr.: 32 985



Box 1000
Item. No.: 30 383

JUNIOR

PRE-/PRIMARY SCHOOL

JUNIOR JUMBO PACK

Item. No.: 16 551

Fourteen models and of these four can be built at the same time. Optimal for kindergarten and play groups.

- **135 components and 14 models**

Applications:

Dump truck, cargo vehicle, low-bed trailer, tow truck, truck crane, portal crane, simple airplane, double decker, sail plane and train with two train cars



ADVANCED

SCHOOL/ SECONDARY LEVEL

Universal II

Item. No.: 93 290

Vice, lifting platform with car, sewing machine and an entire recreation park etc.

Several models can be built at the same time. Here, the everyday technology is understood and experienced.

- **400 components and 48 models**
- Ideal additions are: Mini Motor, Power Motor, Energy Set.

Applications: Fan, centrifuge, beam and scales, scales with sliding weight, kitchen appliance, sewing machine, clamp, crane, oil pump, lifting tackle, spindle press, die and planing machine etc.



PROFI

How do pneumatics work? What are a differential gear, planetary gear, universal joint and a compressor? How do an electrical circuit and a solar cell work? What is a phototransistor? Experience pure technology up close and learn it while playing. The instructional activity booklets provide support for this and contain a lot of background information, sample tasks and solutions.



SCHOOL/SECONDARY LEVEL

MECHANIC+STATIC

Item. No.: 93 291

How does a gearbox work? What is a planetary gear? How is the movement of a windshield wiper produced? How do you design a stable bridge? The answers to these and other elementary questions from the subject areas of mechanics and statics are found in this construction set with 30 different models.

- Includes the instructional activity booklet »Mechanic+Static«.
- Includes Mini Motor, switch and battery holder.
- 500 components and 30 models



Assembly instructions



Activity Booklet



Work Sheets



Recommended storage
4 x Item No. 94 828

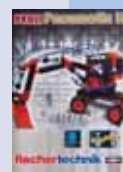


PNEUMATIC II

Item. No.: 77 791

The Profi Pneumatic II provides playful learning of the basics of this "airy" technology and shows, using numerous application examples, the way that pneumatic valves and cylinders work in connection with a compressor and an air cell. It contains four double-acting pneumatic cylinders, three 4/3 way hand valves and one electrically operated compressor with air cell.

- Includes the instructional activity booklet »Pneumatic: Create Movement with Compressed Air«.
- Includes compressor with Mini Motor, switch and battery holder.
- 400 components and 8 models



Assembly instructions



Activity Booklet



Work Sheets



Recommended storage
4 x Item No. 94 828





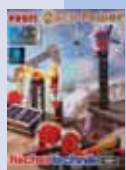
OEKO POWER

Item. No.: 57 485

»Renewable energies« will become our most important suppliers of energy in the future.

The production, storage and use of energy from natural energy sources such as water, wind and the sun is illustrated graphically using the eight models and numerous experiments.

- Includes the instructional activity booklet »Renewable Energies«.
- Includes solar motor, 2 solar cells and Gold Cap energy storage unit.
- 190 components and 8 models



Assembly instructions



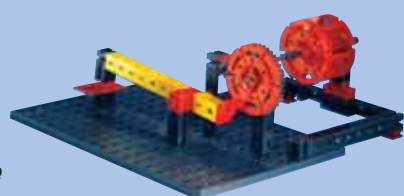
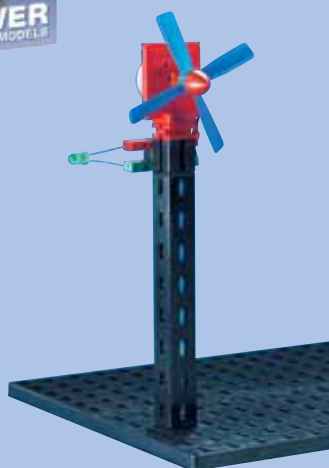
Activity Booklet



Work Sheets



Recommended storage
2 x Item No. 94 828



E-TEC

Item. No.: 91 083

Electrical circuits, electromechanics and electronic controls. Using functional models, for example, the principle of series and parallel connections and the control of a traffic light are explained step by step. For this purpose, the E-Tec module with eight set programs that control, for example, a burglar alarm with a buzzer, a hand dryer with a light barrier or a garage door with a magnetic sensor and these devices are controlled through three inputs for digital sensors such as a probe, phototransistor and reed contact and an output for a motor or two indicator lights.

- Incl. activity booklet »Electrical Technology«.
- Includes Mini Motor, E-Tec module, switch, light barrier, magnetic sensor and buzzer.
- 260 components and 12 models



Assembly instructions



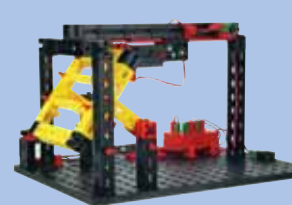
Activity Booklet



Work Sheets



Recommended storage
3 x Item No. 94 828



COMPUTING

Design machines and robot models, program the control software on the PC and put the entire thing in motion: What sounds so complicated and technical becomes a fascinating and creative game with Computing and this doesn't apply only to technical fans.

SCHOOL/VOCATIONAL SCHOOL/UNIVERSITY/

ROBO STARTER SET

Item. No.: 41 863

The complete beginner package: 150 components for eight simple-to-build models such as a traffic light, barrier, heating control or hand dryer. The ROBO I/O-Extension as a passive interface to the PC, the software, ROBO Pro, and in addition the detailed programming book, which explains the graphic software in a simple and understandable manner.

- Includes the instructional activity booklet »Programing and Control of fischertechnik Models with the PC«.
- Includes ROBO I/O Extension as an interface for USB.
- Includes control software, ROBO Pro.
- Includes Mini Motor, 3 sensors and one of these can be used as an impulse counter, 1 phototransistor, 1 NTC resistor for temperature measurement, 3 indicator lights.
- 150 components and 8 models
- Requires »Energy Set« or a »Accu Set«.



Assembly instructions



Activity Booklet



Work Sheets



Recommended storage
2 x Item No. 94 828



8 models +
ROBO I/O-Extension
as interface +
software ROBO Pro



Includes ROBO I/O-Extension
and Software ROBO Pro

ROBO STARTER KIT

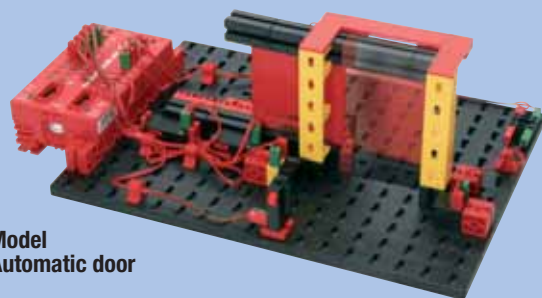
Item. No.: 18 353

Like the ROBO STARTER SET, but without ROBO I/O-Extension and software, ROBO Pro.

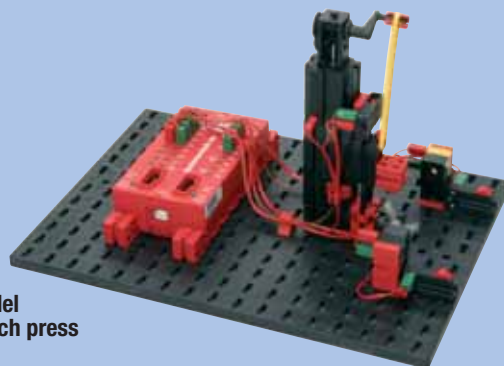
- Includes the instructional activity booklet »Programing and Control of fischertechnik Models with the PC«.
- Includes Mini Motor, 3 sensors and one of these can be used as an impulse counter, 1 photo transistor, 1 NTC resistor for temperature measurement, 3 indicator lights.
- 150 components and 8 models
- Requires »Energy Set« or a »Accu Set«.



Model
Welding robot



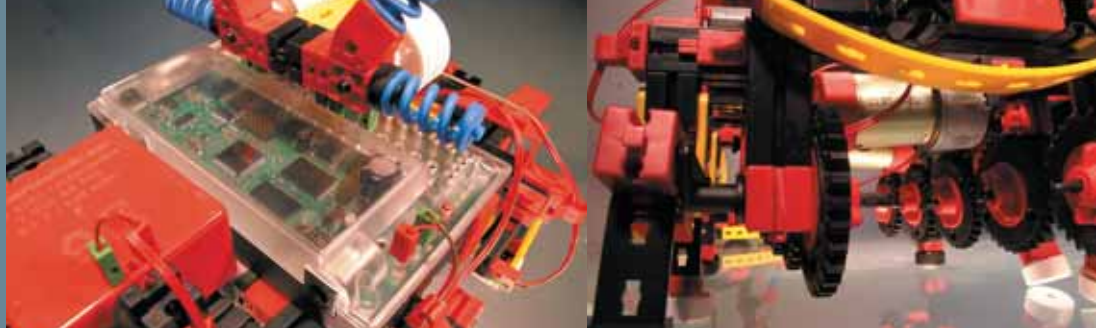
Model
Automatic door



Model
Punch press



Figure
Sorting suggestion with 2 x sorting box 500



ROBO MOBILE SET

Item. No.: 93 292

The complete package which consists of 480 components for the building of eight mobile robot models, the programmable ROBO Interface and the ROBO Pro Software. The instructions explain the construction of the seven mobile robots with all-round edge recognition or obstacle recognition and the mobile robot with six legs. The robot with the light detector continually follows a moving light source and the model, »trail searcher«, follows a black line. In addition, the light detector can be combined with obstacle recognition. The mobile robot moves like an insect and can move forwards, backwards and right and left.

- Includes the instructional activity booklet »Programming and Control of fischertechnik Robots with the PC«.
- Includes the ROBO Interface.
- Includes control software, ROBO Pro.
- Includes 2 x Power Motor (50:1), 4 sensors and two of these can be used as impulse counters, 2 phototransistors, 1 lens tip bulb.
- 480 components and 8 models
- Requires »Accu Set«.



Assembly instructions



Activity Booklet



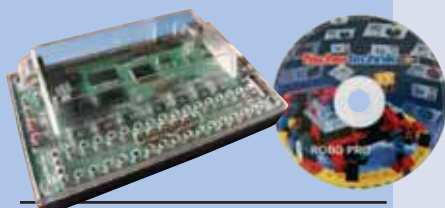
Work Sheets



Recommended storage
4 x Item No. 94 828



8 mobile robots +
ROBO Interface
+ software ROBO Pro



Includes ROBO Interface
and Software ROBO Pro

ROBO MOBILE KIT

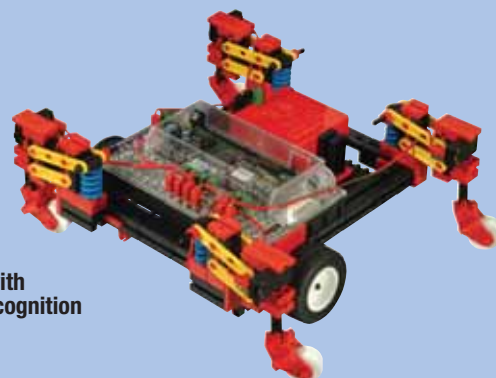
Item. No.: 96 808

Like the ROBO MOBILE SET, but without ROBO Interface and software ROBO Pro.

- Includes the instructional activity booklet »Programming and Control of fischertechnik Robots with the PC«.
- Includes 2 x Power Motor (50:1), 4 sensors and two of these can be used as impulse counters, 2 phototransistors, 1 lens tip bulb.
- 480 components and 8 models
- Requires »ROBO Interface«, software »ROBO Pro« and »Accu Set«.



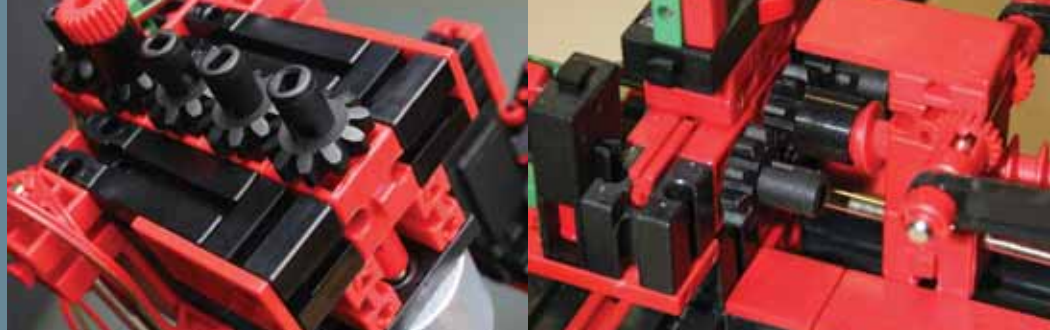
Model
Mobile robot



Model
Robot with
edge recognition



Figure
Sorting suggestion with 4 x sorting box 500



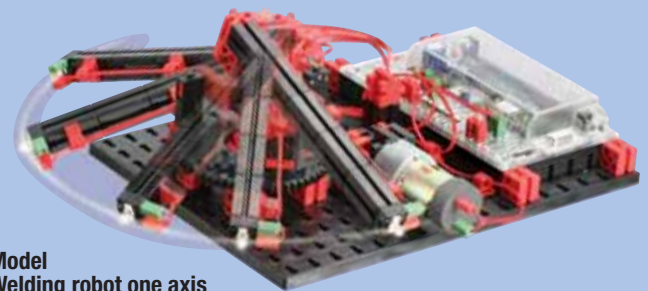
SCHOOL/VOCATIONAL SCHOOL/UNIVERSITY/

INDUSTRY ROBOTS II

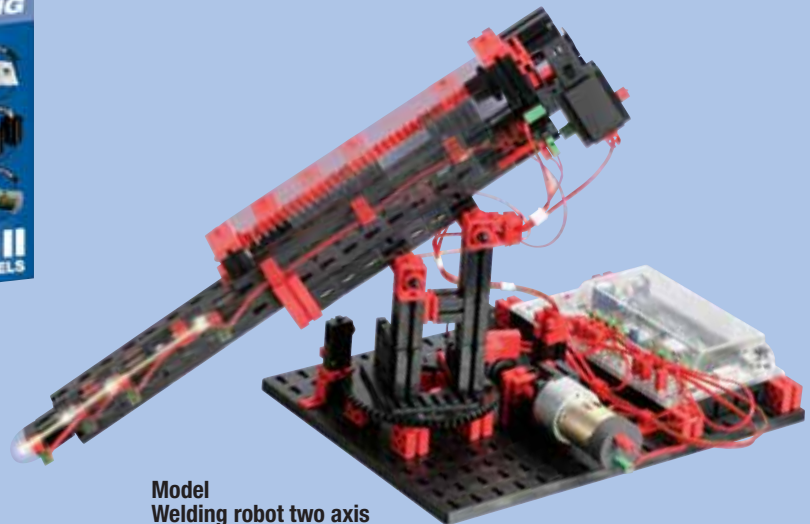
Item. No.: 96 782

Three near-real and true-in-detail industry robots: one 3-axis robot with gripping device with the degree of freedom: axis 1: rotation 180°; axis 2: forwards, backwards 90 mm; axis 3: raises and lowers 110 mm; one welding robot with two axes and one welding robot with one axis as beginner model. The positioning of each axis is done through a reference sensor and an impulse counter.

- Includes instructional activity booklet (learning field oriented)
»Programing and Control of fischertechnik Robots with the PC.«
- Includes Power Motor, 3 x Mini Motor, 8 sensors and ball plug-in light.
- 360 components and 3 models
- Requires »ROBO Interface«, software »ROBO Pro« and »Energy Set« or a »Accu Set«.



Model
Welding robot one axis



Model
Welding robot two axis



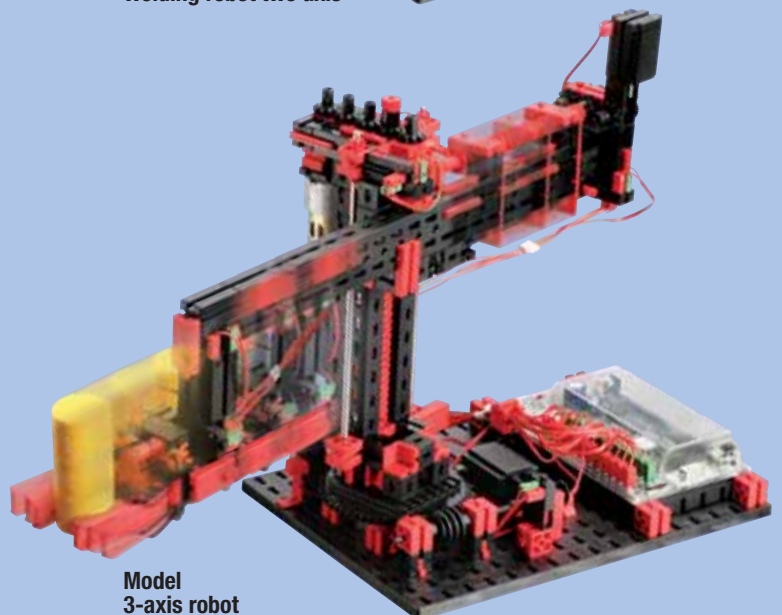
Assembly instructions



Activity Booklet



Recommended storage
4 x Item No. 94 828



Model
3-axis robot
with gripping device



PNEUMATIC ROBOTS

Item. No.: 34 948

Machining center, sorting system, pneumatic gripping device and pneumatic door—the machines powered by air pressure can be programmed and controlled with the ROBO Interface and the software, ROBO Pro, through the PC. The valves open and close electromagnetically. In addition, one CD ROM with didactical instructions and corresponding example programs.

- Includes 2 x Mini Motor, 1 compressor, 1 sensor and 4 pneumatic cylinders, three 3/2 way magnetic valves and 1 light barrier.
- 350 components and 4 models
- Requires »ROBO Interface«, software »ROBO Pro« and »Energy Set« or a »Accu Set«.



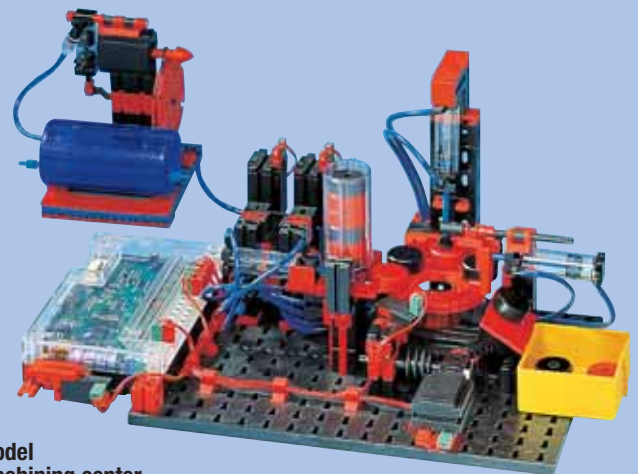
*CD with example programs
and didactical instructions*



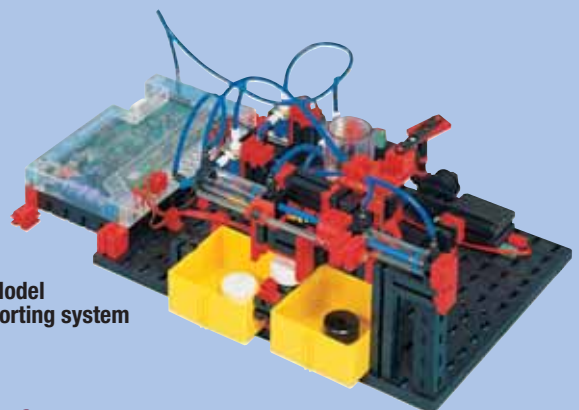
Assembly instructions



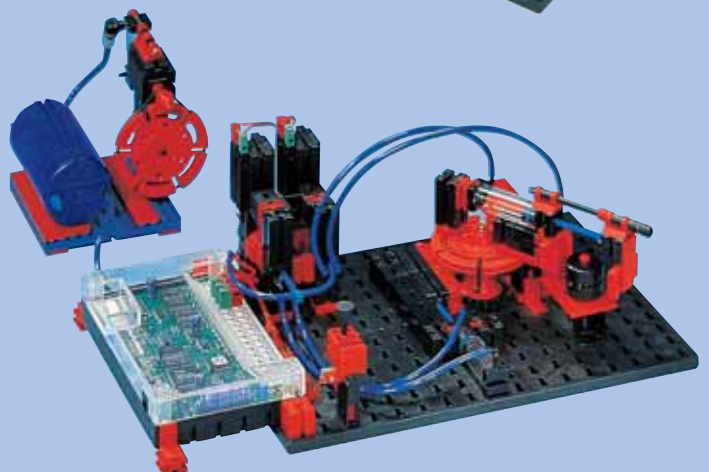
*Recommended storage
4 x Item No. 94 828*



Model
Machining center



Model
Sorting system



Model
Pneumatic gripping device

COMPUTING

Software, hardware and supplemental sets



ROBO INTERFACE

Item. No.: 93 293

With 16-bit microcontroller, USB and serial interface, 128kB flash storage unit for downloading 2 programs

- 4 regulatable motor outputs 9V, 250mA
- 8 digital inputs
- 2 analog inputs for resistors 0-5 kΩ
- 2 analog inputs for voltages 0-10V
- 2 inputs for distance sensors
- One connection each for:
 - Expansion module ROBO I/O-Extension and radio interface
 - ROBO RF Data Link
- Interface for: IR Control Set
- Programmable with software, ROBO Pro, Standard C compiler for programming C programs, which can be downloaded (not included in the scope of delivery).
- Driver software (not included in the scope of delivery) FTLIB for Visual Basic Studio 6.0, Visual Basic, Delphi (only online operation direct on PC)
- Requires »Energy Set« or a »Accu Set«.



ROBO I/O-EXTENSION

Item. No.: 93 294

USB interface for online operation direct on PC and/or expansion module for the ROBO Interface. Connection using 10-pin ribbon cable. Connection for additional ROBO I/O-Extensions with up to three in a series.

- 4 regulatable motor outputs, 9V, 250 mA
- 8 digital inputs
- 1 analog input for resistors of 0-5 kΩ
- Requires »Energy Set« or a »Accu Set«.



ROBO RF DATA LINK

Item. No.: 93 295

Radio interface for ROBO Interface. Connection to the PC at the USB interface. Connection to the interface as an additional printed circuit board, which is plugged into the interface printed circuit board. Range is about 10 m. Seventy-nine frequencies can be set for simultaneous operation of up to 79 devices in one room. Direct communications between two ROBO Interfaces with the same frequency is possible.

- Frequency range 2.4GHz
- No additional power supply is needed.



ROBO PRO SOFTWARE

Item No. 93 296 individual license

(Windows 98, ME, NT, 2000, XP)

Item No. 93 297 individual license (Linux)

Item No. 93 298 school license (Windows)

Simple entry for beginners through proven programming of flow charts consisting of various software building blocks. The exchange of the data between the software building blocks and the subprograms can be done through variable and graphical connections as well. This allows the program functions to be shown in an understandable manner. In addition, the graphic programming language, ROBO Pro, also offers professionals all of the important elements of modern programming languages such as arrays, functions, recursion, objects, asynchronous events and quasi parallel processing. The programs are translated directly into computer language so that extremely complex programs can be executed very efficiently as well. This is also optimally suited for advanced and experienced programmers.

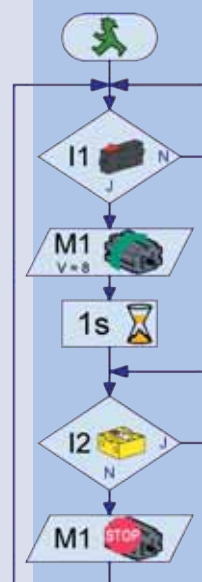
There are no problems with the preparation of teach-in programs or simple data exchange with other Windows software. In the online mode several ROBO Interfaces can be controlled parallel for large models and can be prepared for the activation of individual control panels with switches, control units and display elements.

System Requirements

Minimum of Pentium II 500 MHz, 64 MB RAM, 20 MB free space on the hard drive.

Minimum of 1024 x 768 high color 16 bit.

One free USB or serial interface.



PLUS

Supplemental Sets

Everything that makes fischertechnik more attractive. The fischertechnik supplemental sets create light, movement and additional functions for every model.

SORTING BOX 500

Item. No.: 94 828

Practical storage box with four sorting partitions without contents and base plate



BASE PLATE

Item. No.: 32 985

Cover for sorting box 500
258 x 186 mm



CREATIVE BOX 1000

Item. No.: 91 082

More than 700 components from the current fischertechnik assortment
Packed in BOX 1000 with base plate, 390 x 270mm, as cover.

- 700 components
- 8 sorting boxes



BOX 1000

Item. No.: 30 383

Practical storage box with eight sorting boxes and 32 sorting partitions
The cover also serves as the base plate, 390 x 270 mm.

- 8 sorting boxes
- Big base plate



POWER MOTOR SET

Item. No.: 34 965

The powerful gear unit motor with toothed wheels, worm gear, differential, pole-reversing switch, cable and plug

Performance data: voltage 9V ~,
Max. output 2.4 W at 340 RPM
Gear reduction of 8:1

- 35 Components
- Requires »Energy Set« or a »Accu Set«.



MINI MOTOR SET

Item. No.: 30 342

The universal motor set with S motor, 9V battery holder and many gear unit parts: gear wheels, angular gear, differential and universal joint etc.

Performance data: voltage 9V ~,
Max. output 1.1 W at 5000 RPM

- 50 Components



LIGHTS

Item. No.: 34 970

The light set consists of four indicator lights, colored luminous caps, cables, 9V battery holder, plugs and blink electronics for up to eight lights. Short-circuit and overload proof. For blinking and continuous light.

- 35 Components



ENERGY SET

Item. No.: 30 182

The power supply from the electrical socket for all fischertechnik models

Output: 9V ~, 1000mA

- Power unit + control unit



ACCU SET

Item. No.: 34 969 (220V, Euro plug)

Item. No.: 57 487 (110V, USA plug)

Item. No.: 79 833 (230V, UK plug)

Mobile power supply: battery pack with NiCad 8.4V, 940mAh, and specially adjusted microcontroller charging device, turbocharge, charging time about 1.8 hr., with -ΔU safety charging monitoring

- Charger + battery pack in one



IR CONTROL SET

Item. No.: 30 344

Infrared remote control: 10 m range, three independent motor outputs and of these two can be controlled at the same time, two speed levels. Transmitter can activate up to six motors with IR receiver II.

- Transmitter + IR receiver I

- Required power supply

For the transmitter, 2 batteries LR03, 1.5V, AAA

For the receiver, »Energy Set« or »Accu Set«.

TRAININGS MODELS

Compact function models, which are already assembled, provide ideal training and demonstration models for training and in-service training and industrial automation.

Available in the 9V standard voltage and in the worldwide 24V industrial standard.



VOCATIONAL SCHOOL/ UNIVERSITY/INDUSTRY

PUNCHING MACHINE WITH CONVEYOR BELT

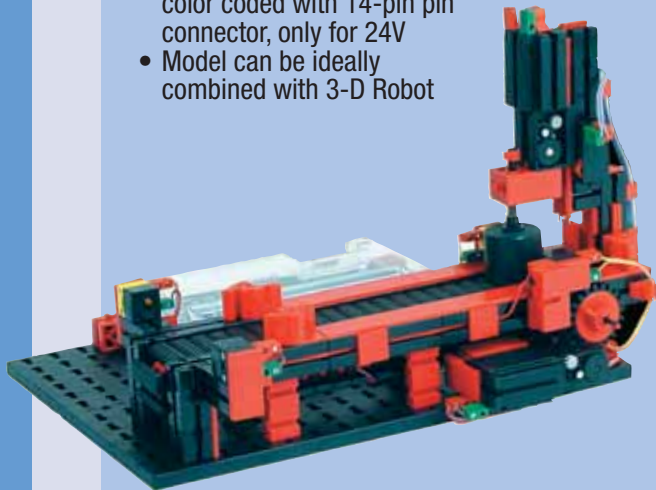
Item No. 51 663 (9V including ROBO Interface)

Item No. 96 785 (24V without ROBO Interface)

Conveyor belt with two light barriers, one machining station and one workpiece

Scope of Delivery

- 2 DC motors, 2 limit switches (potential free)
2 light barriers consisting of phototransistor and lens tip bulb
- Model is mounted on fischertechnik base plate. Carton packaging
Large model: about 280x215x185 mm (LxWxH)
- 4 digital inputs
- 4 outputs, 9V $\bar{\text{---}}$, 24V $\bar{\text{---}}$ (2 motors counter-clockwise, clockwise rotation)
- Ribbon cable, 14-pin and color coded with 14-pin pin connector, only for 24V
- Model can be ideally combined with 3-D Robot



INDEXED LINE WITH TWO MACHINING STATIONS

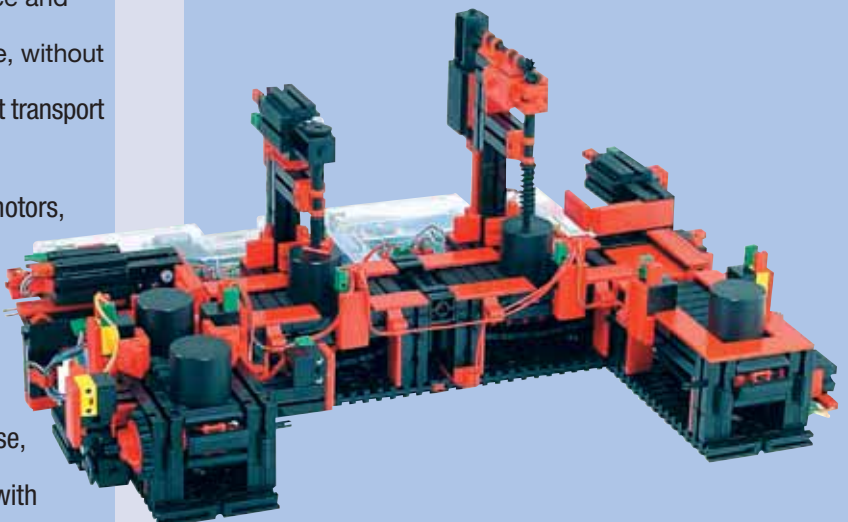
Item. No.: 51 664 (9V including ROBO Interface and ROBO I/O-Extension)

Item. No.: 96 790 (24V without ROBO Interface, without ROBO I/O-Extension)

Conveyor belt, arranged in U-shape, for intermittent transport and for the machining of several workpieces

Scope of Delivery

- 2 machining stations, 4 conveyor belts, 8 DC motors, 4 limit switches (potential free), 5 light barriers consisting of phototransistor and lens tip bulb
- Model is mounted on a stable wooden board. Packed in wooden crate
Large model: about 450x410x190 mm (LxWxH).
- 9 digital inputs
- 10 outputs, 9V $\bar{\text{---}}$, 24V $\bar{\text{---}}$ (6 motors with one direction of rotation, 2 motors counter-clockwise, clockwise rotation)
- 2 ribbon cables, each 18-pin and color coded with 18-pin pin connector, only for 24V



PNEUMATIC MACHINING CENTER

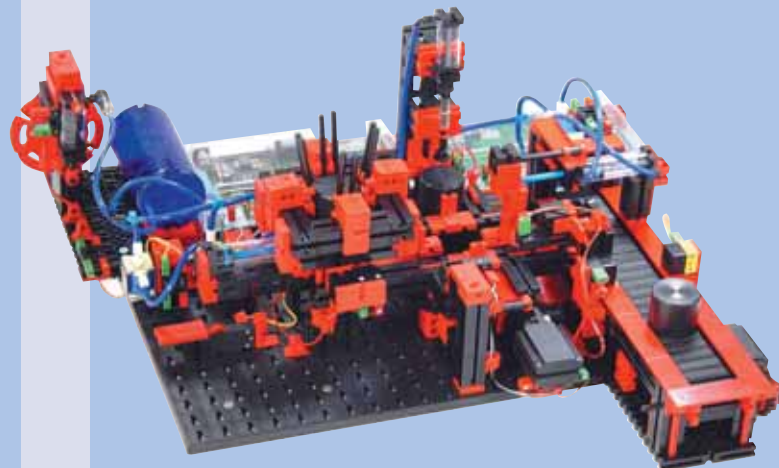
Item. No.: 77 577 (9V including ROBO Interface and ROBO I/O-Extension)

Item. No.: 96792 (24V without ROBO Interface, without ROBO I/O-Extension)

Machining center with bin for workpieces, turntable, machining station, compressor and conveyor belt for the transport of workpieces

Scope of Delivery

- 2 double-action and one single-action pneumatic cylinder, five 3/2 way magnetic valves, 2 DC motors, 4 sensors (potential free), 4 light barriers consisting of phototransistor and lens tip bulb
- Model is mounted on a stable wooden board. Packed in wooden crate.
Large model: about 450x410x190 mm (LxWxH).
- 8 digital inputs
- 7 outputs, 9V $\bar{\text{---}}$, 24V $\bar{\text{---}}$
- 2 ribbon cables, 16-pin and color coded with 16-pin pin connector, only for 24V





3-D ROBOT

Item No. 16 286 (9V including ROBO Interface)

Item No. 96 787 (24V without ROBO Interface)

3-axis robot with gripping device.

Degree of freedom

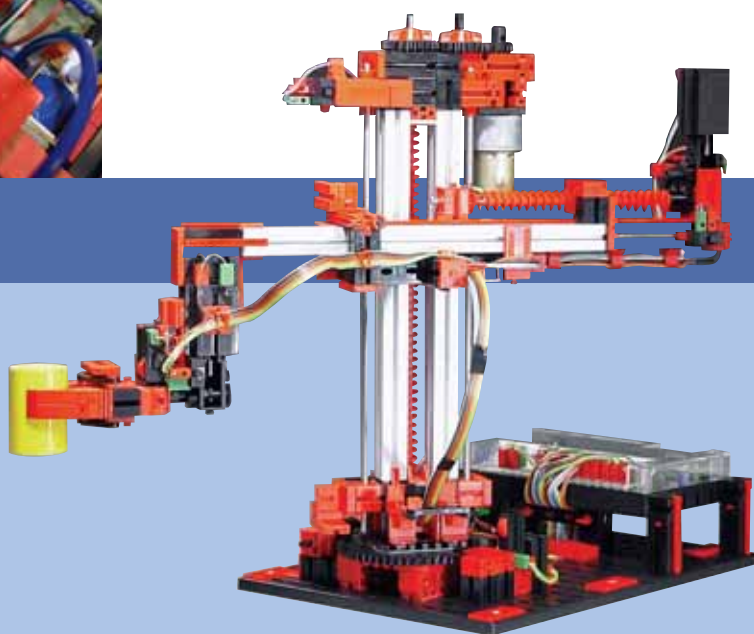
axis 1: 180° rotation

axis 2: forwards, backwards 100 mm

axis 3: raising, lowering 160 mm

Scope of Delivery

- 4 DC motors, 4 limit switches,
4 pulse sensing devices for measuring distances
(all sensors are potential free)
- Model is mounted on a stable wooden board.
Packed in wooden crate.
Large model: about 385x270x350mm (LxWxH).
- 8 digital inputs
- 8 outputs, 9V \dots , 24V \dots (4 motors counter-clockwise,
clockwise rotation)



- Ribbon cable, 24-pin and color coded with 26-pin pin connector, only for 24V
- Model can be ideally combined with the Punching Machine and the Indexed Line

SIMULATION

The function models from fischertechnik simulation are a proven and inexpensive means to plan, develop and test industrial applications with the help of industrial controls and software. They are employed worldwide in the areas of training, development and presentation.

Additional information is available at: »www.fischertechnik.de«

Less is more.

The flexibility and the modularity of the fischertechnik system in connection with the industry-adapted sensors and actors as well as the controls from leading manufacturers open up almost unlimited possibilities for hardware simulation. Compared to the conventional construction of models, fischertechnik models provide the advantages of using inexpensive finished parts, fast assembly and recycling of the material.

For the design and the optimization of technical production processes, modules were developed that allow quick and efficient construction of the simulation system. The control software for a real system can be completely developed and tested without risk through the connection of the models to modern industrial control systems or programmable logic controllers and field bus systems.

Standards for Learning Success

A high learning effect for trainees in the commercial technical area and the technicians and engineers of tomorrow is provided by the functional models through the simulation of actual operations. For industrial projects, the elimination of errors in the planning phase reduces the total costs for a project significantly so that the procurement of a model always remains profitable. Due to the high degree of abstraction of the models, complicated technical systems are shown in a graphic and understandable manner. In particular, the project participants from the commercial

area can get a precise picture so that they can make factually based decisions concerning investments. Contact us directly for more detailed documents concerning the assortment available from fischertechnik simulation.

(See reverse side of catalogue for address.)



"If you're looking for innovations, you will find fischer."
The product lines of fischertechnik and fischer TiP are dedicated to the same high standards as those for the fischer Group.

The fischer Group encompasses four divisions: fischer fixing systems with fixing technology and construction accessories, fischer automotive systems with such items as cup holders, ashtrays and multifunctional components for the automobile interior, fischertechnik with educational construction toys and play material as well as fischer process consulting.

Both toy brands, fischertechnik and fischer TiP, promote creativity and learning from playing. fischertechnik playfully reveals the world of technology to children and people who remain young. With the fischer TiP make-it-yourself material, pre-school and older children can implement their own ideas by making things and models and painting.

You can find more information at: <http://www.fischer.de>



World of fischer

Befestigungssysteme
Automotive Systems
Prozessberatung
fischertechnik

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What do the TEACHERS get from this?

Instructional material that helps their pupils to playfully submerge themselves in the world of technology to understand this world and to comprehend it. The constructing of the fischertechnik models promotes logical thinking and creativity. Thus, you are supporting the natural talent of your pupils in learning about technology in the truest sense of the word. The fischertechnik world knows no limits because all construction sets and all components fit together ideally and complement each other.

What do the pupils get from this?

This is quite simple: they learn about technology while playing. Assembly is creative and concentrated, the teamwork is friendly and supportive and curiosity and discovery are part of the experimentation and exploring.

- A quality product made in Germany
- High degree of acceptance by parents, teachers and engineers
- All construction sets and components can be ideally combined with one another.
- Awarded with:



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