

Fan Club NEWS 01/2016 – English Translation

For a copy of the fischertechnik newsletter/magazine (in German) see our webpage...

www.procontechology.com.au/newindex.htm

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Dear Fans,

No sooner has the Nuremberg Toy Fair come to an end (turn to page 2 for more) than it's nearly time for Easter. If you've still got a free wish for Easter, then we're sure to have just the right thing for you! Why not ask for one of the new, low-cost PROFI Dynamic construction sets (page 4) or the cool ADVANCED Universal Starter, which I'll be introducing on page 3. You're sure to be quite curious about the other new construction sets as well, which I'll be explaining in greater detail on pages 3, 4 and 5. I'm eager to see how you like these new products. In line with the Easter theme, our development department has come up with a tiny FAN CLUB model for you (page 7). The "egg painting machine" makes it really easy for you to paint lots of eggs before Easter. I wish you an entertaining read and lots of fun with the new FAN CLUB News! Yours Diana.

Fan Club Day in Waldachtal - lots of highlights and attractions are waiting for you

On 24 July 2016, the 10th FAN CLUB Day will be taking place in Waldachtal from 10 am to 4 pm. Special sales, tours of the company and ROBOTICS workshops will be joined by additional highlights. Given the great success of last year's fan model show which was met with an enthusiastic reception, we have decided to hold another exhibition again this year. Would you like to take part and present your models in the fan model show? Then please register with us accordingly by the end of April. You'll find the registration form in your documents. Please send the completed registration form by e-mail to Tobias.Brezing@fischer.de. There will naturally be a surprise thank-you package for every exhibitor. We look forward to your visit!

Incredible new product! The 3D printer by fischertechnik

You're sure to have heard about the fischertechnik 3D printer. Please turn to page 5 for more details.

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Death of Prof. Artur Fischer

Senator E.h. Prof. Dr. phil. h.c. Dr.-Ing. E.h. Artur Fischer died on 27 January 2016. It was back in 1948 that Arthur Fischer successfully founded and established the fischer Group which also includes fischertechnik. He launched the first fischertechnik construction set in 1965. fischertechnik was actually intended as a Christmas present for the children of business partners working with the company producing the famous fischer plugs. But in the end, so many children loved making models with the fischertechnik construction sets that this became a business unit all of its own. It was in 1966 that the first construction sets were presented at the Nuremberg Toy Fair. In 1980, Prof. Artur Fischer handed over responsibility for the family company to his son Prof. E.h. Klaus Fischer, thus demonstrating how much he trusted his son at the tender age of just 29 years. He was then free to dedicate himself to his passion as an inventor and continued to develop many new products for the company. These included in 1998 the idea for the brightly coloured fischer TiPs, the creative material made of potato starch. Prof. Artur Fischer always remained true and loyal to his home in the northern Black Forest. Throughout his life, his horizons extended beyond business matters, with his commitment to the public good and to encouraging and fostering young inventors. Numerous awards and accolades impressively emphasise his life's work. It is with respect and gratitude that we mourn and remember Prof. Artur Fischer. www.youtube.com/watch?v=Ke5K4S-Cjg8

Model show in Münster - a huge success

On Sunday, 22/11/2015, the 14th fischertechnik model show was held in Münster, organised by four fischertechnik fans from the Münster area. 28 exhibitors from throughout Germany and the Netherlands presented a range of fischertechnik models, some small, some life-size, which astounded the 800 visitors. The exhibitors included fischertechnik fans, whole families inspired by fischertechnik and a number of school groups. Three school children from Hilstrup (Tom, Nils and Maximilian, 14 years) built a high bay industrial robot capable of placing barrels in defined positions. Niklas Ostermann (12 years) presented his drinks dispenser and four other models. The fischertechnik-mad family Howey from Nottuln was also present. Fabian (12 years), Ida-Maire (9 years), Dad Holger and Mum Katja created 101 little models for the model show. The trick was that all models were made from the 13 parts of the small fischertechnik Oldtimer Give Away. A radar system which locates light sources and a Ferris wheel made of 12,000 parts with a height of 214 centimetres were just two of the exhibition's highlights. We're looking forward to seeing what amazing models will be on display again this year! The model exhibition will be held on 20/11/2016 in Kardinal von Galen Gymnasium grammar school in Hilstrup.

Instagram

We are now on Instagram as well as Facebook, Twitter and YouTube. You probably already know about Instagram. If you want to see some interesting and funny pictures and videos about fischertechnik and fischerTiP, then this is just the right thing for you, as the focus is primarily on posting awesome, unusual pictures. Take a look at our fischertechnik and fischerTiP channels and, if you like, take out a subscription.

Toy Fair – fischertechnik in the media spotlight

The presents for next year's Christmas tree were already on display in January at the world's largest toy fair in Nuremberg. The fischertechnik team was one of the 2,800 exhibitors, presenting the new 2016 products at the attractive fischertechnik booth. We're naturally keen to share this information about the new products, which is why we are presenting them in full detail in this issue of the FAN CLUB News. As every year, the day before the Toy Fair was taken up with the new products show. This year's presentation was truly impressive! A do-it-yourself 3D printer?! That's just what fischertechnik presented, to an enthusiastic response from the media. Quirin (10 years) and a few fischertechnik employees presented the 3D printer to the many reporters from television and radio channels, advertising portals, newspapers and magazines. Young Quirin answered many questions and was then seen in some of the evening TV news programmes such as ZDF, Kika, BR and SWR.

Save these dates in 2016...

Trade Fairs:

- OFFA St. Gallen 13/04 – 17/04/16
- Intermodellbau Dortmund 20/04 – 24/04/16
- modell-hobby-spiel Leipzig 30/09 – 03/10/16
- Suisse Toy Bern 05/10 – 09/10/16
- Spiel Essen 08/10 – 11/10/16
- Modellbau-Messe Vienna 23/10 – 26/10/16
- Faszination Modellbau Friedrichshafen 28/10 – 30/10/16
- Süddeutsche Spielemesse Stuttgart 17/11 – 20/11/16

Events:

- FAN CLUB Day Tumlingen 24/ 07/16, 10am - 4pm

From Fans for Fans:

- Club Day Schoonhoven (NL) 29/10/16
- Fan model show Münster / Hiltrup 20/11/16, Kardinal-von-Galen-Gymnasium grammar school, Zum Roten Berge 25

Special Sales Events:

- Salzstetten Wolfäcker 1, 72178 Salzstetten 03/12/16, 9-12am

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Profile

Markus Burkhardt joined fischertechnik as a developer in October 2015. He deals mainly with all aspects of electronics, software, sensors and robotics. As a mechanical engineer, the thing he likes best about fischertechnik is that it covers such a wide range of science and technology, offering a playful approach to learning about these topics. He can't wait to see one of the products he has developed on the shelves or in the catalogue. With his love of programming and robotics, his favourite construction set is the TXT Discovery Set. You can already look forward to the new ROBOTICS construction sets, where Markus Burkhardt is sure to have been involved!

Oh to be a princess – with the new girl's bucket by fischerTiP

We've got just the right thing for all creative girls who love to dress up as a princess! The new Princess bucket by fischerTiP (Princess 600 / €9.95) lets girls aged from three years create their own jewellery and submerge in a glittery fairytale world. The great thing about our Princess bucket: it has a resealable lid and you can take it everywhere you go. It contains about 600 TiPs in the colours purple, pink and skin colour, together with other parts such as a sponge cloth, cutting tool, elastic thread, mirror foil and three cardboard templates. Follow the instructions to make a princess's mirror, an amulet, a bracelet, a tiara, a necklace, a mirror and a jewel box. Come on then girls, make the models, wear the jewellery and admire yourselves in your very own self-made mirror! You can then keep your splendid jewellery or other treasures in your pretty jewel box.

New low-cost beginner's construction set

Technology! That's what makes fischertechnik so special. The new, low-cost ADVANCED Universal Starter is just ideal for all you technology fans. It can be used to make 15 different models to learn about everyday technology by playing. Follow the instructions to make 15 models from 255 parts. Two of the models can even be made at the same time. As ever with fischertechnik, you can naturally also use the construction set to make your own models. Together with numerous basic building blocks and versatile structural elements, the construction set also has wheels, a cable winch, elements for a worm gear and a crank drive, and also gear wheels. By following the easily understood instructions, you can use these parts to make various vehicles with steering, a gyroscope, cranes, a tower and a teeter-totter. The great thing is that you'll learn something else at the same time, for example how the tie rod transmits steering movements to the wheels. The dockside crane also shows you another principle involved in force transmission. In this cool model, you can use the hand crank of the worm gear to change the incline of the three-link boom. Four-axle joint - yes, that sounds complicated, but it isn't really! Make up the teeter-totter model to find out all about this technical principle and how it works. And the easiest way to observe how gyroscopic forces work is to spin the gyroscope and let go. The construction set can also be used to make various vehicles with steering: go-kart, buggy, racing car, motorbike and a tow truck. The latter is even capable of towing heavy items. It's amazing how easy it is to move something heavy with a cable winch and pulleys. Needless to say that you can also make additions to the construction set. If you want lights or motors for your models, you'll find these in the PLUS Motor Set XS, the PLUS LED Set, the PLUS Power Set and many other construction sets. The instructions show you how to install the fischertechnik XS motor for motorised models. Now that's really something! Understanding how technology works, in your very own room!

ADVANCED Universal Starter: • from 7 years • 15 models • 255 parts • Price: €39.95

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Let's roll: new ball obstacle course – fischertechnik Dynamic L2, S and XS kits

This year fischertechnik continues to expand the successful PROFI Dynamic line. Two compact, low-cost beginners construction sets, Dynamic XS and Dynamic S, were already launched in January. From June you can look forward to a new version of the popular Dynamic L. This large ball obstacle course construction set Dynamic L2 with the new action obstacle course and new action parts promises even more high-speed playing fun. Altogether, the fischertechnik PROFI Dynamic line features five construction sets and one supplementary set.

PROFI Dynamic L2

If you already liked the Dynamic L, then you're sure to love the new Dynamic L 2 construction set as well! The new large obstacle course construction set offers even more possibilities for letting the balls race through the flex-rails. Among the total number of 760 parts, you will find many dynamic parts and completely new special obstacle course parts that weren't in the previous construction set. In detail, the complete set contains four new high-speed curves, three new 180° curves, eight short and 17 long flex-rails, four 90° curves, ten steel balls, a rotary funnel, a cross-over, a fischertechnik XS motor and a battery tray for a 9V block battery. Three action obstacle courses with a track length of up to 4.5 m and four instructional experiment models can be made from the many

parts and special components. There's plenty of action on all three obstacle courses! The newly designed mechanical cross-over sends the balls flying into two different downward tracks. Rotary funnel, looping, teeter-totter and above all the new 180° curves permit rapid changes of direction. The new high-speed curves with raised sides let the balls race at full speed through the curve. On arriving at the bottom, the elevator driven by a fischertechnik XS motor brings the balls back up to the top and all the fun can begin again. Four experiment models make a playful introduction to the laws of acceleration, the balance of forces, the law of conserving energy and the principle of linear momentum. The eLearning portal (www.fischertechnik-elearning.com) offers instructional activity information, animations and videos that help to make physics easy to understand.

PROFI Dynamic L2: • from 9 years • 7 models • 760 parts • with XS motor, 4x 90° curves, 3x 180° curves, 10x balls, 4x high-speed curves, 8x flex-rails 90, 17x flex-rails 180, cross-over, catch funnel, rotary funnel and battery tray for a 9V block (battery not included) • instructional activity material available free of charge online in the eLearning portal • Price: €109.95 • available from June 2016

PROFI Dynamic S

To the left, to the right, over the teeter-totter, through the 90° curve, brushing past the sound tube, through the stopping point and the ball arrives at the bottom again Altogether three quickly made obstacle courses can be constructed from the 140 parts with four 90 curves, six short and three long flex-rails, a sound tube and three steel balls. But if we know you at all, then these three obstacle courses are sure to be just the beginning. In the good old fischertechnik tradition, you can naturally have lots of creative fun in developing your own obstacle courses and track designs. All available for €27.95 - an obstacle course construction set at a really low price.

PROFI Dynamic S: • from 7 years • 3 models • 140 parts • with sound tube, 4x 90° curves, 3x balls, 6x flex-rails 90, 3x flex-rails 180 • Price: €27.95

PROFI Dynamic XS

There's lots of fun to be had with the PROFIL Dynamic XS construction set. Using the instructions, the 70 parts can be used to make a jump, ball obstacle course and a dexterity game. Here you can demonstrate the skills at your fingertips in a ball labyrinth and try to balance the balls through the obstacle course. Even more creative ideas for playing with the models can be downloaded free of charge on the website (www.fischertechnik.de/Dynamic-XS) an. For example, the coloured templates and ball obstacle course can be used to play skittles and darts or for goal-shooting. With the jump positioned at the right distance, the ball will fly in a perfect trajectory through the fire ring. The construction set contains a 90° curve, six short flex-rails and two balls. We say "Let's Play" with the ball obstacle courses by fischertechnik!

PROFI Dynamic XS: • from 7 years • 3 models • 70 parts • with 90° curve, 2x balls, 6x flex-rails 90 • other game templates can be downloaded free of charge • Price: €12.95

As ever, these construction sets can naturally be supplemented with all Dynamic line construction sets. The PLUS LED Set or the PLUS Sound + Lights Set add more light and effects to your models.

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fischertechnik 3D printer – printing the future

We presented our new 3D printer for the first time at the Nuremberg Toy Fair. You can make your very own 3D printer using familiar fischertechnik parts and learn about the basic principles of 3D printing. The robust 3D printer is easy to build and can be used to make various things from CAD data, such as a special wheel for example, to supplement the fischertechnik models. The construction set for youngsters from 14 years consists of 600 parts and will be available from June for €699.95. You're sure to want to know exactly how the 3D printer works. Well, this is what happens. During the printing process, a piece of wire-shaped plastic called a filament (PLA, 1.75 mm diameter) is heated to 200°C in a heated nozzle. This makes the bioplastic malleable. The nozzle (0.5 mm diameter) applies the soft mass to the printing bed. The printer applies a layer of material that is 0.2 mm thick. The contours are thus printed layer by layer on top of each other. For example if you want to print something one centimetre high, then the 3D printer has to print 50 layers on top of each other. The 3D printer by fischertechnik can print single-coloured items such as a box ready for use. The printing time in each case depends on the size and complexity of the thing that you want to print. The described printing process is controlled by the 3D controller. Together with an Atmel microcontroller, it also includes a USB interface for the computer, connections for four step motors, a power output for the heated nozzle, connections for three limit switches and a temperature sensor, as well as a DC port for 19V voltage supply. The complete set includes four high-torque step motors, three mini push-buttons, a heated nozzle with temperature monitoring, a printing bed with printing plate and a power unit for the power supply. The set contains a top quality filament for your first printing attempt; quality filaments in typical fischertechnik colours can be ordered separately. The printer software contained in the construction set (CD-ROM) is intended for computers operating with Windows 7, 8 or 10 and is specially adapted to the fischertechnik 3D printer. The software library contains numerous finished printing examples as printable G-Codes. A G-Code is a list of commands to move the nozzle to defined positions. Of course you can also produce your own CAD data to print designs that you have developed yourselves (free programs can be found on the internet). See the 3D printer in action; take a look at the video... www.youtube.com/watch?v=3-ztp5Na-k

ROBOTICS 3D printer: • from 14 years • 1 model • 600 parts • with 3D controller, printer software, 4 step motors, 3 mini push-buttons, heated nozzle, printing bed with printing plate, power unit, filament sample • instructional activity material available free of charge online in the eLearning portal • Price: €699.95 • available from June

TECHNICAL DATA:

› printing range: 115x100x80 mm › layer thickness: min. 0.2 mm › filament diameter: 1.75 mm › nozzle diameter: 0.5 mm › material: PLA (polylactide)

KNOW-HOW:

An aircraft manufacturer already uses 3D printing to produce cabin elements, a sporting goods manufacturer makes soles for

running shoes and fashion companies manufacture garments. 3D printing is already being used successfully in these and other branches of industry. The technology was invented about 30 years ago and is said to have a great future in science and industry. Since 2009, the technology has also become available for private use. Nobody knows exactly how 3D printing will develop in future. Who knows ... maybe in ten years from now everyone will have a 3D printer at home.

For technicians and builders – NEW fischertechnik Mechanic & Static 2

The 500 parts enclosed can be used to make 30 different models, following the extensive instruction book. As you make the models, the basic principles of mechanical and structural engineering are demonstrated to you step by step, showing for example how gear wheels are used in force transmission and how the use of different sized gear wheels changes the ratio in a manual transmission. All this and more is packed into the new PROFI Mechanic & Static 2 construction set. You can find out more about the construction set in the next Fan Club NEWS.

PROFI Mechanic & Static 2: • from 9 years • 30 models • 500 parts • with XS motor and battery tray for 9V block (battery not included) • instructional activity material available free of charge online in the eLearning portal • Price: €99.95

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Gallery

Many thanks for continuing to send the numerous e-mails with photos of interesting and funny fischertechnik models! Here we show you a selection of models. In addition, you can visit www.fischertechnik.de/en to vote for the coolest model. Take a look! Please keep in mind that we can only consider photos that are sent via e-mail to info@fischertechnik.de. For legal reasons, we would ask you not to include any people in the pictures of your models.

Congratulations!

In the 02/2015 issue, Benedikt Kumpke from Tharandt demonstrated his fischertechnik knowledge in the quiz. He sent in the right solution FT-FAN and has won a ROBOTICS Mini Bots. 16 was the right solution in the question about the fischertechnik book. Doris Reisinger from Kematen an der Krems and Jan Kowal from Remscheid knew the right answer. Both can look forward to receiving a PROFI Da Vinci Machines construction set and a fischertechnik book. We sincerely congratulate all winners!

Crossword puzzle

1. How many models can be made with the Universal Starter when following the instructions?
2. Which colours are contained in our Princess bucket? Pink, skin-colour and ...
3. When will the Dynamic L 2 be available?
4. What do you call the material with which the 3D printer prints?
5. What do we call the rails that the balls in the obstacle course fly through?
6. For what age is the 3D printer suitable?

Oh and by the way, please use ue for the German letter ü. Good luck!

When you have found the right answers, write the letters from the green boxes into the fields below to spell out the solution to the puzzle. Send your solutions by e-mail to reach us by 30 April 2016, stating "Crossword puzzle" to gewinnspiel@fischertechnik.de
The prize is an ADVANCED Universal Starter construction set.

Find the error

Take a good look at both pictures and find the errors. How many errors have been built into the lower picture? Send the right answer (the number of errors) by e-mail to reach us by 30 April 2016 to gewinnspiel@fischertechnik.de The prize is a PROFI Dynamic S construction set. Good luck!

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ASSEMBLY INSTRUCTIONS No. 48 – FAN CLUB model – egg painting machine

Easter without Easter eggs is almost inconceivable. At Easter it's fun to colour eggs, paint them, spray them, decorate them, make them pretty - and of course in the end, to eat them. The current Fan Club model that you can build from the ADVANCED Universal Starter and PLUS Motor Set XS construction sets makes it really easy to paint the eggs: Place the egg on the tyres, dip your brush in the paint and hold it in position, then switch the motor on. The egg now turns of its own accord, giving free rein to your creativity. Paint the eggs in one colour or with patterns, just how you like it. Have fun constructing and painting!