

Fan Club NEWS 02/2013 – 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,

Readers of the magazine familie&co voted the PROFI Optics construction set to be the winner of the "Toy and Technology" category in the "Golden Rocking Horse" toy competition. We are very pleased that the construction set was so successful in winning one of the most important toy awards. Page 4 tells you how to find out about light and optical phenomena. You can also read about fischertechnik's successful teams at the RoboCup world championships in Eindhoven, Holland, even bringing the title back home with them. fischertechnik teams already secured the first seven places at the RoboCup in Austria. And the first place at the RoboRave in Albuquerque (USA) also went to a fischertechnik team. Congratulations! We wish you an entertaining read and lots of fun with the new FAN CLUB NEWS!

1,500 parts to build big - new: **ADVANCED Power Machines**

1.4m long, 80cm high, 50cm wide: now that really is a superlative model of a bucket wheel excavator! You can also use the 1,500 parts of the new **ADVANCED Power Machines** construction set to make a track mounted crane that is 1.70 m high. Read more about this on Page 4.

More than 700 enthusiastic visitors: seventh fischertechnik FAN CLUB day

Riding on vintage tractors, visiting a mobile planetarium and listening to an expert in space travel: the seventh fischertechnik FAN CLUB day on 14 July in Tumlingen and Salzstetten put a glow into the eyes of not just the youngest visitors. You can read more about it on Page 3.

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fischertechnik for space travel: Christian Hehr constructs an ion thruster

Schools and universities have been using fischertechnik construction sets for a long time. Now, fischertechnik parts have also been used yet again in the aerospace industry. At EADS Astrium, development engineer Christian Hehr used fischertechnik in the development of a new communications satellite. For the model, Christian Hehr constructed a two-axle mechanism for an ion thruster using fischertechnik parts. "The fischertechnik construction sets contain parts such as axles, gears, motors, structural parts, gear wheels and sensors - all the components you need to make a satellite. I just made good use of it all", explains Christian Hehr. The graduate engineer was given his first fischertechnik construction set at the tender age of 2 years. Meanwhile he has collected 40 sets. While at school, he learnt the principles of electronics with fischertechnik construction sets. This reinforced his desire to be an engineer.

Travelling to Mars with fischertechnik: ROBO TX Explorer on expedition

At the Leonardo da Vinci Museum in Milan, children and families waited eagerly for one man: Paolo Bellutta. He is an engineer for the NASA Curiosity vehicle. From the earth control centre, he steers the vehicle that is used to perform tests on Mars. He showed the children and families how a robot is programmed for this kind of mission on the Red Planet. And what's the best way to do that? Using fischertechnik of course, with the ROBO TX Explorer. A contest was then held for the children to program the fischertechnik model themselves to make it avoid hindrances and arrive back at a defined point on earth. The expert naturally also answered lots of questions, revealed some of the secrets of his work, talked about what has been achieved and the challenges still facing him in his tasks with Curiosity.

Category winner PROFI Optics: 3 nominations for fischertechnik and fischer TiP

Drum roll for the fischertechnik construction set PROFI Optics! It was voted the winner in the "Toy and Technology" category of the "Golden Rocking Horse" toy competition. Read more about this construction set on Page 4. But that's not all! Together with the PROFI Optics construction set, the fischer TiP Theater Box was also nominated for the "Golden Rocking Horse", and the PROFI Oeco Energy construction set and the fischer TiP Fashion Box for the TOP 10 Toy. The PROFI Oeco Energy and **ADVANCED Universal 3** construction sets were recommended for the "Learning by Playing" initiative. "Learning by Playing" gives children more scope for playing at school. As part of a competition, the initiative therefore equipped primary schools with play rooms free of charge.

Profile

Jochen Kaupp is a new developer at fischertechnik. The father of three children has been working in the fixing systems division of our company for 22 years. He loves his job as a mechanical technician because it gives him scope to be creative and make new things. What he likes best is to develop a product and then see the finished item at a trade-fair or in the catalogue. As far as he is concerned, the greatest praise is the sparkle that comes into the eyes of fischertechnik fans when they see a new construction set. He is particularly interested in pneumatics, so that Pneumatic 3 is his favourite construction set.

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More than 700 enthusiastic visitors: seventh fischertechnik FAN CLUB day

More than 700 children, youngsters, parents and enthusiastic fischertechnik fans came together at the seventh fischertechnik FAN CLUB day in Waldachtal. Under this year's motto of "Understanding Technology", there were once again many attractive features on the programme to put a glow into the eyes of young and old alike. Vintage tractors were on show to accompany the new **BASIC Tractors** construction set, with a hands-on opportunity to have a ride as well as just take a look. The new **PROFI Optics** construction set helps you investigate optical phenomena and experiment with light. And so we presented a mobile planetarium together with a presentation by Prof. Dr.-Ing. Stefanos Fasoulas from Stuttgart University entitled "When will we be flying to Mars?" This year too there was an opportunity for fans to exhibit their impressive large-scale models. One particular eye-catcher was the 7 metre high crane by fischertechnik constructor Wim Starreveld from Holland, who brought the model specially in his caravan. The crane consists of 9,000 parts and half a kilometre of cord. The Dutch fan began to experiment with fischertechnik construction sets at the

age of 5; today he is 51 years old. Other large models were on display as well as the big crane. Tips and tricks were presented at the programming workshop and a dowel seminar. For the first time, we were supported by 'genius', the know-how community at Daimler AG. Their stand showed how the assembly line in a car factory works. A play and research feature also offered an opportunity for open-air activities. In Salztetten, all visitors were able to take a look behind the scenes at fischertechnik with a tour of the production facilities and a chance to put together their own construction set. If you weren't able to be there on the day or want to revive your impressive memories, you can find a summary on our YouTube channel:

www.youtube.com/fischertechnikTV

fischertechnik wins the day: RoboRAVE in Albuquerque

The RoboRAVE in Albuquerque (USA) was attended by teams from New Mexico, Colombia, the Czech Republic and China. The best 8 teams qualified for the final, where they competed against each other in the "Fire Fighting" category. The fischertechnik team won first prize.

World champions with fischertechnik: victory for Croatian teams

This year's RoboCup world championship was held in Eindhoven, Holland. More than 2,500 participants from 40 countries competed against each other with their self-programmed robots. The Croatian teams were particularly successful and won the title of World Champions. They won first and fifth place in the category Rescue A primary "Robots search for victims". They also won eleventh place in the category Rescue A secondary. All teams used fischertechnik parts. The strong Croatian teams had already secured the first seven places at the RoboCup in Austria. Congratulations!

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Know-How

Did you know that bucket wheel excavators are among the largest and most spectacular excavators in the world? The first steel giants were made in the 1930s. By 1978, excavators were being made to move up to 240,000 tonnes of coal or excavated material each day. These are still the world's largest excavators and are used in open-cast lignite mining in the coalfields of the Rhine, Lausitz and Hambach.

XXL technology - new: fischertechnik ADVANCED Power Machines

1.4m long, 80cm high, 50cm wide: that's the new bucket wheel excavator. The new construction set contains 1,500 parts! As an alternative, you can also make a track mounted crane that is 1.7m high. Those of you that love making large models in particular will enjoy the many realistic functions that the model offers. The entire superstructure turns round on the running gear. The bucket wheel excavator consists of a running gear with 3 crawler track units, a superstructure and the loading unit with a conveyor belt. The bucket wheel is driven by a fischertechnik XS motor and connected to the conveyor belt by a chain drive. This brings the excavated material to the second conveyor belt. The conveyor belt is driven by a crank which transmits the force via a gear wheel to a worm gear. You can also use a cable winch to raise and lower the jib with the bucket wheel.

ADVANCED Power Machines: from 7 years, 2 models, 1,500 parts, with XS Motor and battery holder, ideal additions: PLUS Motor Set XS, PLUS Motor Set XM, PLUS Sound + Lights, PLUS Control Set, PLUS Power Set or PLUS Accu Set, price: 199.95 euros, available from July

Investigate optical phenomena: new: fischertechnik PROFI Optics

You can use the new construction set to investigate optical phenomena and to experiment with light. The construction set contains 3 optical lenses with 2 focal distances, an LED that flashes in the colours of the rainbow, 2 mirrors, fibre optics, 2 lens tip lamps, battery holder and an activity booklet. The 270 parts can be used to make 15 different models, such as the microscope, magnifier, telescope, periscope or a model of the planets.

PROFI Optics: from 9 years, 15 models, 270 parts, ideal addition: PLUS Accu Set, price 79.95 euros, available from June

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Know-How: current from a solar cell

In simple terms, electric current is generated in the solar cell when electrons from the n-layer are excited by the incident light and move via the connected consumer (for example the solar motor) to the p-layer. The more light (i.e. energy) on the cell, the more the electrons move. On connecting a solar cell to a consumer, it will move preferably in this direction. If you imagine the flow of current as a circuit, electrons keep on arriving from the n-layer and migrating to the p-layer again. It is this flow of electrons that makes the current flow so that the motor turns. READ MORE ABOUT THIS IN THE ACTIVITY BOOKLET IN THE CONSTRUCTION SET.

Sun, wind and water - new: fischertechnik PROFI Oeco Energy

370 parts help you to find out about renewable energy sources. The PROFI Oeco Energy construction set has two efficient photovoltaic modules, one solar motor, one super-capacitor (Gold Cap) for energy storage, one LED and 370 fischertechnik parts. You can generate current for the solar motor with just a little sunshine or light irradiation. The "House of the Future" model uses wind power and solar power. The fischertechnik model explains how this works. When the wind blows, the wind power station drives the solar motor which acts as generator and makes the LED light up. When the sun shines, electricity is generated by the photovoltaic module and stored in the super-capacitor (Gold Cap). The solar tracker model ensures optimum alignment of the two photovoltaic models to the sun at all times. Emobility from regenerative energy: you can generate this now in your own room! The two photovoltaic modules on the solar charging station absorb the sun's energy which is saved as electrical energy in the vehicle's super-capacitor (Gold Cap). All solar models in the PROFI Oeco Energy construction set can also be driven with the reversible fuel cell in the fischertechnik PROFI Fuel Cell Kit. PROFI Oeco Energy also contains an additional photovoltaic module.

PROFI Oeco Energy: from 9 years, 14 models, 370 parts, 2 efficient photovoltaic modules, LED, solar motor and energy storage, ideal addition: Fuel Cell Kit, price: 99.95 euros, available from June.

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GALLERY

Many thanks for continuing to send the numerous letters and e-mails with photos of interesting and funny fischertechnik models! Here we show you a larger 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

QUIZ

Test your fischertechnik knowledge and win a new PROFi Oeco Energy construction set. You can find the answers on the indicated pages. The solution (from top to bottom) means "referring to the sun" in a foreign language.

1. Which planet is being investigated by the Curiosity robot? » Page 2
2. Where was this year's RoboCup World Championship held? » Page 3
3. What can you experiment with using the PROFi Optics construction set? » Page 4
4. What can you make with the new ADVANCED Power Machines construction set? » Page 4
5. What was on display at the FAN CLUB day to go with the BASIC Tractors? » Page 3

Send the solution with your complete name, address and age to gewinnspiel@fischertechnik.de stating "QUIZ"; the closing date is 15 December 2013.

Congratulations!

The solution to the picture puzzle in issue 01/13 was "telescope". Pau from Lepant (Spain), Moritz from Reutlingen and Bruno from Stuttgart were among those who knew the answer. All three were happy winners of a new BASIC construction set. Nelson from Ludwigsburg knew the right solution to the know-how quiz and won the PROFi Optics. The answer was "shooting star".

FAN TIP:

Do you know www.ft-datenbank.de* is an absolute MUST for fischertechnik fans. It contains information from nearly 50 years of fischertechnik, put together by fischertechnik expert Karl Tillmetz and looks at range (construction sets), individual parts, instructions and advertising. Take a look! *although this website is in the German language it's easy to use! Just enter the part number in the box and click "suchen" (search).

Fun "sans frontier" in Europa-Park: win an admission ticket

Take part and win admission tickets for Germany's largest theme park: Europa-Park in Rust, with 100 different attractions in 13 theme countries. Experience Europe in just one day! Enjoy the winter wonderland from 23 November 2013 to 6 January 2014. After a short break, the park will be reopening again in April 2014. Fancy a day of fun, thrills and excitement? Then send us an e-mail stating "Europa-Park" to gewinnspiel@fischertechnik.de to arrive here before 30 November, and tell us how many theme countries there are in the park. All entries will go into the draw for 3 x 4 admission tickets. Don't forget to tell us your full address and age together with the solution. Planning a family day out and you don't want to wait for the prize? Then take a look at the Europa-Park website on www.europapark.de

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ASSEMBLY INSTRUCTIONS No. 43 – FAN CLUB model track mounted excavator for your collection

Combine the two construction sets PROFi Pneumatic 3 and ADVANCED Power Machines to make a chunky track mounted excavator. The three hand valves control the excavator arm with the wide excavator bucket and move it to different positions. The compressor supplies the compressed air for the pneumatic cylinder. As in a real track mounted excavator, the superstructure above the crawler track unit turns through 360°.

Have fun making the model!