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**Hello fischertechnik Fans**, the new ADVANCED Super Fun Park building set with its three models recreates all the fun of the fair. The PROFI and COMPUTING lines offer another three new high-tech building sets. The PROFI Technical Revolutions building set relives the history of inventions in the 19<sup>th</sup> century, while the ROBO TX Explorer in the COMPUTING line stands out with encoder motors and compact models. This year's highlight is the ROBO LT Beginner Lab in the COMPUTING line, making introducing the world of programming and robotics accessible to young engineers from an age of eight. And so this year once again we fully live up to our claim that "Engineering can be child's play". 2010 is the year of the FIFA Football World Cup in South Africa. fischertechnik is also actively involved in South Africa. Turn to page 3 for more.

Have lots of fun and enjoy reading the new News! Your Tobias

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#### Profile

Name: Beate Theurer; age: 46 years; favourite building set: ADVANCED Super Fun Park

Profession: export clerk, job at fischertechnik: Beate deals with the orders from our customers in North and South America, Asia and Australia. She is in constant contact with customers, forwarders and the customs authorities to organise export shipments by air and sea. Before the building sets leave Germany, she draws up the customs documents.

Name: Sven Plonka; age: 40 years; favourite building set: PROFI Pneumatic II

Profession: transport clerk, job at fischertechnik: Sven works in the warehouse to put together the orders for our customers before packaging them to keep them safe during transport. Then he hands the consignments over to the parcel services and forwarders, who collect the goods from us with their trucks.

#### Dancing the samba in the snow: presenting new products at the Toy Fair

When samba dancers teeter through the snow, fully packed Chinese barge through the entrance controls and Stefan Raab's TV assistant Elton quickly gets his nose powdered, then it's once again time for the new product presentations at the Toy Fair. As in previous years, fischertechnik was not just present but right there in the thick of things. We presented our new products to TV, radio and newspaper journalists one day before the Toy Fair began. Perhaps you've already read about it in your newspaper. If not, you'll find a well presented summary on pages 4 and 5.

#### Join in with the VDIn Club – all about technology!

Have you ever heard of the VDIn Club? If not, take a look at [www.vdini-club.de](http://www.vdini-club.de) or order the free club magazine at [kontakt@vdini-club.de](mailto:kontakt@vdini-club.de). If you like maths, are interested in technology and would like to explore and discover unknown worlds with other children and youngsters, then this is just the thing for you. The VDI (Association of German Engineers) has already started up VDIn Clubs in some German towns and cities. Perhaps there's also one near you?

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#### All around the globe, from China to South Africa: fischertechnik in all the world

fischertechnik is meanwhile at home all around the world not only in children's rooms but also in classrooms and university labs. We've collected and described a few examples for you from the whole globe. And off we go on our world tour. Did you know that you'd need 1,335,833,900 size 30 building blocks to place them in a line all around the earth, corresponding to a distance of about 40,075 km?

USA: 5,000 trained teachers instruct 300,000 pupils at 3,000 schools (middle schools and high schools) in more than 40 states. Mexico: pupils at the middle school in the state of Veracruz and Mexico D.F. use fischertechnik for their design projects. Colombia: vocational colleges in nearly all states work with fischertechnik. Slovenia: 500 primary schools are equipped with the PROFI E-Tec and PROFI Mechanic + Static building sets for technology lessons. Malaysia: pupils in 4th and 5th grade at 7,000 primary schools learn with fischertechnik. Thailand: pupils at 400 middle schools in the greater Bangkok area are taught with fischertechnik. Taiwan: pupils at private learning centres learn with fischertechnik. Korea: fischertechnik is used to teach children in home-schooling settings. China: future engineers at universities and trainees at vocational colleges use fischertechnik for design and programming assignments. South Africa: size: 1.22 million square kilometres (more than three times the size of Germany), population: 45 million, languages: 11, currency: Rand.

#### fischertechnik virus at the Cape - Sascha Lipka is "Mister fischertechnik" in South Africa

The countdown's running: kick-off for the FIFA 2010 Football World Cup is on 11 June. For the full month running up to the final on 11 July, South Africa will be the focus of interest for football fans and the media. We won't need to tell you how much people in South Africa are looking forward to the event, so instead, Sascha Lipka has filed a report on the spread of the fischertechnik virus at the Cape. Sascha Lipka is 39 years old and has been the fischertechnik representative in South Africa since 2007. The businessman has lived in South Africa since 1997, specialising in selling top quality products from Germany for technical education and training projects at schools, universities and companies. It goes without saying that fischertechnik building sets can also be purchased in certain toy shops and hobby shops in the large cities such as Johannesburg, Cape Town and Pretoria. But fischertechnik in South Africa is used not just in children's rooms: the pupils at 50 state high schools and 50 private schools work with PROFI line building sets in project teams and study groups. Future engineers experiment with fischertechnik at ten colleges and universities, sharing tips and tricks for the new ROBO TX controller with students in Germany. fischertechnik is also used for training purposes in the electronic and mechatronic sectors in companies such as BMW, Ford and Siemens. So much for fischertechnik in South Africa. But now let's ask Sascha Lipka the most important question: which team does he want to win the World Cup? "Germany, of course!"

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**Inventions change the world - New: Technical Revolutions:** What is a perpetual motion machine? What does a cardan shaft do? How is Morse used to send messages? Answers to these and many other questions can now be found in the PROFI Technical Revolutions building set. The extensive activity booklet gives you additional information and helps you to understand the fundamental principles of the inventions. Including those that didn't work. The wheel of the perpetual motion machine turns. Arms fitted to the end swing down during the downwards movement and retract again during the upwards movement. Although the wheel has no drive, it doesn't seem to get slower. Or does it? Even the genius inventor Leonardo da Vinci back in the 16<sup>th</sup> century tried to construct a functioning perpetual motion machine. The idea is a machine that doesn't stop moving without having to be driven a second time. Got it? If you've read this text carefully and you already know something about famous inventions and inventors, have a go at the Inventor Quiz on page 6. PROFI Technical Revolutions: •

220 parts • 11 models • including XS motor • including battery holder • Age: from 9 years • Price: 79.95 Euro. In the shops from July 2010

**Fascinating Ferris wheel - New: ADVANCED Super Fun Park:** In Vienna the Ferris wheel has long been one of the city's landmarks, and it always attracts crowds of visitors at funfairs all over the world. The Ferris wheel is a classic – also at fischertechnik. We have now made it larger, even more realistic and more robust to play with. We've also included the XS motor and a battery holder in the big pack. Funfair music from the sound module and flashing lights from the supplementary Sound + Lights set will bring all the fun of the fair to your room. **ADVANCED Super Fun Park:** • 660 parts • 3 models • Ferris wheel over 50 cm in diameter • including XS motor • including battery holder • Age: from 7 years • Price: 99.95 Euro. In the shops from the end of March 2010. Ideal supplement: PLUS Power Set, PLUS Sound + Lights. **Fun Code:** Today countless messages are sent simply by e-mail, SMS text or Twitter. Before the Morse alphabet was invented, back in the 19th century it was much more tedious to send messages. Letters were delivered by stagecoach or messengers. The first Morse codes were sent by Samuel Morse in 1837. In those days, the code had only ten numbers. From 1838, Alfred Lewis Vail, one of Morse's employees, developed the first code for letters. Right through to 1960, this code was used as the standard means of sending messages worldwide, particularly at sea. Use the fun code below to log onto the Fan Club section of our website at [www.fischertechnik.de](http://www.fischertechnik.de), where you'll find the international Morse alphabet.

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**Discovering and understanding technology - New: ROBO LT Beginner Lab:** Why does a roundabout start slowly and stop gently? Why does the light in the stairway go off automatically after a certain time, and how do the sliding doors open without having to press the switch? Are these some of the questions you've been asking? Now you can discover and understand how and why this works. What's more, the new ROBO LT Beginner Lab building set lets you program the computer yourself. We have developed the building set for children from eight years, because we know that computer control systems are a topic that children already come across at primary school. The heart of the building set is the new ROBO LT Controller with three inputs for sensors, two outputs for motors and a USB port. The activity booklet explains how to construct and wire the controller, together with programming instructions, of course. You'll also find it contains the first programming tasks. We've developed the ROBO Pro Light software to make sure you get lots of fun out of programming the controller. All the programming modules appear like building blocks on the screen and are linked together when programmed. **ROBO LT Beginner Lab:** • 180 parts • 8 models • ROBO LT Controller • ROBO Pro Light software • XS motor • Push-buttons • Photo transistor • 2 lamps • You'll also need the PLUS Power Set or PLUS Accu Set • Age: from 8 years • Price: 129.95 Euro. In the shops from July 2010. **Explore and discover with the computer - New: ROBO TX Explorer discovers the world!** Explore unknown rooms, measure distances, follow trails, recognise colours, measure temperatures, evade hindrances without any contact, detect night and day, trigger alarms: the models and numerous sensors in the ROBO TX Explorer building set turn fischertechnik designers into modern-day explorers. The building set is an ideal addition to the ROBO TX Training Lab and fully compatible with the ROBO TX Controller and software. **ROBO TX Explorer** • 400 parts • 6 models • 2 encoder motors • 2 Push-buttons • 3 lamps • Buzzers • NTC resistor for measuring temperature • Photo resistor • Visual colour sensor • Infrared track sensor • You'll also need the ROBO TX Controller, ROBO Pro software, PLUS Accu Set • Age: from 10 years • Price: 179.95 Euro. Already in the shops.

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**Gallery: Choose the Model of the Year 2009:** We've received many interesting and funny fischertechnik models – many thanks! Congratulations on your creativity! Please note that we can only post digital pictures in the gallery at [www.fischertechnik.de](http://www.fischertechnik.de). Please send the pictures to [info@fischertechnik.de](mailto:info@fischertechnik.de). This issue presents all the 2009 gallery winners. Now you can choose the Model of the Year 2009 from all the winning models. The winner will receive a building set of his/her choice! You can submit your votes by 30 April 2010 on the [www.fischertechnik.de](http://www.fischertechnik.de) website under Fan Club/Gallery. Good luck! The winner for January to March 2009 was "3D printer" by Andreas; the winner for April to June 2009 was the "Fully automatic ball path" by Lukas (9 years), the winner for July to September 2009 was "Robot arm" by Andreas (13 years) and the winner for October to December 2009 was the "Paddlewheel steamboat" by Frederik (9 years).

**Inventor Quiz – Test your knowledge and win building sets and subscriptions!** Test your knowledge in the fischertechnik EQ Inventor Quiz. If you know the right answers, right down the letters and you'll soon have the solution. We wish you lots of fun with the tricky questions and of course lots of luck in the competition. The first prize consists of a fischertechnik PROFI Technical Revolutions building set and an annual subscription to the new Science Illustrated magazine. The winners of the second to fifth prizes receive an annual subscription to the new Science Illustrated magazine. Please send us a postcard or e-mail stating "Competition" to: fischertechnik GmbH, Weinhalde 14 – 18, D-72178 Waldachtal or [info@fischertechnik.de](mailto:info@fischertechnik.de). The closing date is 30 June 2010. The judges' decision is final. Congratulations to the winner of the competition in issue 02 / 09. Patric from Bartholomäberg (Austria) won an Energy Package from the PROFI Oeco Tech and PROFI Hydro Cell building kits.

1. Who invented the steam engine? A Alessandro Volta Q Nikolai Tesla E James Watt
2. What does every electric motor need? S Cogwheel N Copper coil G Cardan shaft
3. What does a Faraday cage protect you from? I Electric fields E Rain F Little brothers and sisters
4. What did Thomas Alva Edison invent? J Morse machine F Light bulb K Car
5. Which technology was used for wireless transmission of signals already before 1900? S Wifi I Bluetooth R Radio
6. When was the first railway journey completed by a first steam locomotive? D 1704 U 1804 J 1904
7. What's the name for an elevator that goes round in a loop? D Paternoster W Avemaria A Annodomini
8. Which inventions play a vital role in making a car move? O Horn and radio N Engine and gearbox Z Wing mirror and child seat
9. If no current is applied to an electric magnet, then ... P ...the electric magnet repels iron. G ...nothing happens. H ...the electric magnet attracts iron.

**No. 36 - Collector's item: radar station fan club model** Use your own radar station to monitor air and shipping traffic. The radar antenna has an integrated XS motor and turns automatically through 360 degrees. But be careful: the technology is extremely delicate, perhaps you ought to make a radar dome for added protection. You can make this station with the new **ADVANCED Super Fun Park** building kit. Have fun!