fischertechnik FAN-CLUB News - Issue 02/1996 - October 1996

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Editorial - Hello fans,

Here we are again, the new FAN CLUB News is now out. We have collected lots of up-to-date and interesting news about fischertechnik for you. We would like to take this chance of thanking all who have helped us with ideas and suggested models. In this edition, we will be telling you about an Eiffel Tower made from fischertechnik parts, a computer-controlled walking machine and a solar-powered glider which fischerwerke helped to develop.

As our fan-club member, you will also receive the latest 1996/97 fischertechnik Catalogue exclusively with this NEWS edition. We have also enclosed a questionnaire. We would like to know how you build using fischertechnik, how you play and experiment and what you expect of fischertechnik.

We will then be in a better position to cater for your wishes and ideas when we develop new building kits. So don't forget: complete the questionnaire and send it back to us.
But first, enjoy reading the new edition.
Yours, Kay

High life on the highway

At last, here it is, the new, powerful KING OF THE ROAD. But the other two models in this new building kit are no slouches. More on page 2.

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King of the road
The motors for the Model Truck and King of the Road are in the Discovery Set (30299) or you can take the parts from Master Discovery, which includes the S Motor (30309). The S-Motor Set (30262) in conjunction with a polarity reversal switch and a battery holder will also do the trick. You can also motorize your truck using the Motor Set (30310) or the Motor Master (30302).

The new thing about this building kit is the softer tyres which are very easy to mount. These tyres are already available from the Retail Service under Article Number 32913.

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Victory for Number 1

So this is the new Tiny Tim looks like. Our new Action Set Racing Car is now in the shops. For a cool DM 25 you can get over 80 components and a detailed, easy-to-understand assembly booklet. A whole load of building and driving fun is guaranteed and free of charge. The editor's test driver (Tobias, 6) was really impressed by the simple assembly and the super roadholding. Our tip: get the Racing Car, drive off and have fun.

PC using fischertechnik enclosure

"Experienced kids can build the computer in an hour - adults need a little longer," is how the German economics magazine DM puts it. What they mean is a PC called the Alphaville 2001 which is built using 500 fischertechnik parts. The computer's "internals" are also of the best: a 133 MHz Intel Pentium CPU, 16 MB RAM, 8-disk CDROM drive, a 2 MB video card and a 16 bit stereo soundboard. The 1.2 GB hard disk opens the door to "complex multimedia worlds" according to the suppliers. SOS music in Senftenberg (phone +49 353 798460) offers the kit together with keyboard, mouse, 15" monitor and Windows 95 for just over OM 3000. "The Trick" of it all, according to DM, is that the enclosure is made of black, red and yellow fischertechnik building blocks. The magazine's assessment: a "well equipped computer for PC freaks with a bent for do-it-yourself".

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Eiffel Tower made of 6000 components

As part of the project days of the Overberg school in Oesede, four schoolchildren of the fischertechnik AG have built the Eiffel Tower in Paris using fischertechnik building blocks - with the help of their teacher.

The tower, built to a scale of 1:150, is over 2 metres high and consists of over 6000 components. The fantastic model was finished in time for the celebration which took place on 31 May - that was when fischertechnik AG celebrated the 20th anniversary of its founding.

Alfons I: A robot learns to walk

What design must a robot have to go on voyages of discovery on the ocean floor or on unmapped planets? What design will respond better than others to obstacles which were totally unforseeable? A group of schoolchildren from the Illertal Gymnasium (Illertal Grammar School) in Vöhringen asked themselves these questions and examined legs in nature. The solution: a very unusual looking walking machine which answers to the name of "Alfons the First". Each "leg" is driven by two motors. The power transfer method uses the same principle as muscular power in nature. There is also a special effect that occurs during locomotion: the position of the legs reacts flexibly to surface unevenness. The device is controlled by a TurboPascal program and two fischertechnik interfaces. On difficult terrain, you can simply switch over from automatic to manual control. Each motor is controlled individually. Giselbert Hinkelmann, Florian Schrapp and Kai Scheffold, the inventors of Alfons, won the regional competition entitled "Youth researches" in Augsburg with this project and have thus qualified themselves for the State Competition.

fischertechnik for walking robots

The State Museum for Technology and Work in Mannheim staged an exhibition for technical innovations based on nature from 1 June to 29 September this year. A large section was devoted to the subject of walking robots. The exhibits included various models from the "I'm walking" fischertechnik building kit. Under the adage of "BIONICS: Future technology is learnt from nature", the Mannheim exhibition showed examples of bionic research, development and application from the whole of Europe on a surface area of 800 square metres. As all you "I'm walking" fans know the term "Bionics" is a combination of the words "biology" and "technics". The aim of bionics is to transfer nature's solutions to the field of technology in order to utilise "nature's inventions" which have taken millions of years to develop and optimize. (Picture: The half-moon joint in the beetle leg as depicted by Franz Reuleaux).

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LETTERBOX

In the past few weeks and months, we have received bags of mail from you. To tell you the truth, even our design engineers are sometimes surprised about the super ideas some of you have for building models. By the way, in future there will be a small surprise when your model photos are published.

Hi, folks,
We (Christian and Sascha) only wanted to experiment a little with the fischertechnik SENSORIC kit. Then we had a super idea: we built the sensor to the door frame and attached the magnet to the door - and that was in Christian's tree-house. This means that nobody can get in now. We had a choice of buzzer or light. We find your FAN mail really great. Keep up the good work!
Christian Ochs and Sascha Schwarz from Gross-Ge.rau

Computer-controlled Truck
1.50 metres long and 20 centimetres wide, two motors and a full-suspension semi-trailer - even at first glance, the articulated truck by Andreas Riedlinger (17) from Baiersbronn is an impressive model. But the technical detail is even more impressive: this load train is controlled by joystick using a C64 computer. Forward, reverse, left and right - and at the press of a button you can start the stepper motor under the trailer. The trailer rises and the tractor can be unhinged.

Model for SPS-Control
For the past 20 years, Martin Stölzle from Esslingen has been occupied with fischertechnik. But he only joined the FAN CLUB last year. He built his model as part of an SPC presentation to illustrated and liven up an otherwise very dry subject. By the way, SPC stands for "stored-program control". Put very simply, it means that a machine can be controlled by a computer. Our PROFI COMPUTING kit will show you how this works.

Letter from Robert Kloppenborg, Nordwalde:
Dear Sir/Madam,
A few days ago, I wanted to buy a child's bike for my nephew at Toys 'R' Us and had to wait for a while. Suddenly I was standing in front of a fischertechnik shelf.
For more than 20 years, I have been a fan of this building kit system but due to my studies, I had no more time to devote to it for a good 10 years. And then, in front of this shelf, the memories of my childhood came flooding back. What a feeling! In short, I couldn't tear myself away and I bought the Off Road kit. At home, I got out myoid kits and compared the components. There had been a lot of changes! But still, everything fitted, no matter how you combined the old and new parts. Somehow, the child in me was re-awakened.
What an off-terrain vehicle! Spur gears, rubber tyres! Simply fascinating. After I stopped my collection with the hydraulic excavator in 1979/80, I have now started again. Bionics, pneumatics, Cartech - I find them all so sensational today as electro-mechanics and electronics were twenty years ago. Before, it was the best toy; today it is a hobby. The only thing is that myoid motors are no longer capable of dragging a kipper from my plates after twenty years. They will have to be replaced - soon, when my purse has recovered. For the meantime, though, the Starlifters are keeping me in their spell, just as much as the fork-lift truck. What colours! Fantastic!
Thank you for giving me my second childhood.
Robert Kloppenborg, Nordwalde

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LETTERBOX

"fischerformer" - a combination of fischertechnik and transformer - is the name which Benjamin Pape from Rüthen gave to this model. You can swivel between a figure and a vehicle without rebuilding the model.

Crane models
We were very impressed by the crane models made by Ulrich Strauch from Düsseldorf. Here is a small selection from his collection.

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Solar-powered aircraft lifts off with the help of the fischertechnik inventor

fischertechnik presents (as reported in the last NEWS) a solar kit, and fischertechnik inventor Artur Fischer is promoting the world's only airworthy solar-powered aircraft. With a wing span of 25 metres, Icaré 2 has almost the same dimensions as a Boeing 737. 21 square metres of monocrystalline solar cells are installed on the wings and the horizontal tail surfaces. It can also lift off by itself thanks to an electric motor which has a maximum output of 12 kilowatts.

The solar-powered glider was developed and built by a 40-strong team of students studying at the University of Stuttgart and financially supported by Prof. Artur Fischer. When the pilot Werner Scholz turns the rotor blades of his "sunbird", it is with the aid of titanium parts which the tool-making department of fischerwerke supplied for the propeller fairing hub. In addition to the generous financial aid donated by Artur, the senior boss, engineers at the company also provided a lot of practical support.

Nearly two dozen functional parts for two aircraft assemblies took the fischerwerke engineers almost 200 hours to complete. The materials included steel, aluminum and titanium (about a third). The silver-white lightweight metal is an excellent material and is used in the shipbuilding and aerospace industries due to its high strength, low weight and optimum corrosion resistance. On 7 July this year, Icaré 2 took off from the airforce base at Laupheim only powered by solar energy and left the competition literally standing on the ground. Over 50 applications were received to take part in the Berblinger solar-powered flight competition staged by the City of Ulm, but on the first Sunday in July, there were only 17 left on the list of participants - and only five of them had a presentable aircraft. Of these prototypes, only Icaré 2 actually took to the air.

After two years of development and construction work, "A dream came true," said Prof. Rudolf Voit-Nitschmann of the University of Stuttgart. The future-oriented project was implemented under his direction with support from graduated engineers Michael Rehmet and Werner Scholz. The reward: applause from the 30,000 spectators and the Berblinger Prize worth DM 100,000. Prof. Artur Fischer, honorary rector of the University of Stuttgart and himself a keen former glider pilot, acknowledged the successful end to the project during the official maiden flight of the "sunbird" on 1 July at Stuttgart airport: "Enthusiasm, courage, the willingness to take risks, untiring hard work, and an untamed determination to carry through an objective once recognized as correct, have led to a team performance with deserves admiration and will go down in the history of aviation as a pioneering invention."

Keyword: Albrecht Ludwig Berblinger

He became known under the name of the "tailor of Ulm". He lived from 1770 to 1829 in the free city of Ulm. In 1811 the inventor crashed with his aircraft into the Danube because he had to fly on the wrong day and at the wrong place for the honour of the king.

Assembly Instruction
CLUB MODEL No. 9 - "DRIVE SYSTEM FROM THE HARZ MOUNTAINS"
FOR YOUR COLLECTION

The idea for the model originated this time from FAN CLUB member Daniel Vollbrecht from Neulussheim. On holiday in the Harz mountains, he saw this machine at a mining museum. Although it is hard to imagine at first glance, you can drive up or down the mine shaft with a constant movement using this type of "drive system". When the two platforms are adjacent, you must change platforms. Try it out and you will be amazed!