FAN-CLUB News 01/2000

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Editorial

Hi Fans,

Welcome to the first FAN-CLUB-News in the new millennium. Wow! - over 5,000 new members joined our club last year. We would like to take this opportunity of welcoming them all with a big, hearty "Welcome to the fischertechnik FAN-CLUB!"

On page 2 everything gets off to a big start with all kinds of important items on all aspects of the FAN-CLUB. Please read this section particularly attentively.

We are currently working on a new design for our homepage - www.fischertechnik.de ... You can read a detailed report about this on page 3. Also, at the bottom of the same page we are presenting a SpaceLab developed by American students and mainly constructed from fischertechnik components.

The LETTER BOX is full to the brim with the model-building competition "Snow Plough" that we announced in FAN-CLUB News 2/99. We have received many letters and some wonderful models - but you can see all this for yourselves, on pages 4 and 5.

Under the heading of NEW, we are reporting on our new exhibition stand at the Nuremberg International Toy Fair and at the Interschul/Didacta, an exhibition of educational materials in Cologne. Please refer to the enclosed brochure for the" fischertechnik 2000 Innovations" that were presented there.

Last but not least - Club Model No. 16. Here we can show you something very special- a processing centre consisting of the Pneumatic Robots and Industry Robots kits and controlled by LLWin, two intelligent interfaces, and the new extension module for the intelligent interface.

But now - enjoy reading FAN-CLUB-News 1/00. Yours ever

About ourselves
After the 1999 annual program had been finalised, we were confronted by an unusually large number of complaints that parts were missing from some of our kits. We regret this very much, and would like to apologise for it to all FAN-CLUB members.

In order to get the complaints rate back down to zero, we have been collaborating for some time now with a new service provider, a firm near us that assembles all the parts and puts them together into kits. We expect that this firm will be able to restore the tried-and-trusted fischertechnik quality.

Club Model
We will in future be placing the instructions for the Club Model on pages 7 and 8, thus saving sufficient costs to allow us to send out a third FAN-CLUB-News a year. This is because one of the clear results of our questionnaire was that you would like us to write to you more often. We are also going to meet one of your other requests: a section on 'Tips and tricks with fischertechnik".

And now, we have a request for you: if you come across any good "tips and tricks" when you are building a model with fischertechnik, please send it to us at once. Many thanks.

FAN-CLUB cards valid until December 1999 and June 2000

At the moment, most of the FAN-CLUB cards in circulation with members are (or were) valid until 'December 1999 or-June 2000, New members will be sent the same cards, but with no expiry date.

In order to keep everything as simple as possible for you, all current members will continue to be members of the fischertechnik FAN-CLUB. These means that FAN-CLUB cards will continue to be valid even if they are shown as expiring in December 1999 or June 2000.

However, if you would like to have a card without any expiry date, just let us know. If you do NOT want to be a club member any more (and we hope that does not apply to anybody) should also let us know, and we will cancel the membership.

Internet: fischertechnik-Homepage gets a new design

There will be plenty of new ideas from fischertechnik this year in the Internet as well. We are currently working on a new version of the fischertechnik pages. The illustration shows a screenshot still under development.

The new Web presence will contain more information than previously. The actual fischertechnik product catalogue is being taken out of Intershop, our on-line shopping arcade, and enlarged to include illustrations of all our kit models. Separate sectors are also being created for education and industry. It will of course still be possible to check prices and order products, as there will be a special button for these functions.

We intend to "tidy up" the particularly important computing page, with many links, and redesign so that everyone can understand it more easily. The standard answers to the "FAQ's" (Frequently Asked Questions) about all aspects of fischertechnik can be called up at any time.

In addition to this, the links section is being enlarged so that we can show not only pages with fischertechnik content but also links to pages of general interest and to technical subjects.

Consideration is also being given to offering a screen-saver of wallpaper of fischertechnik models for down-loading, and it will also be possible for you to play our on-line game "Mobile Robot Race" at any time and for as long as you like.

Finally, there will be suitable presentation of fischertechnik dealers and export partners. The new presence will also be supported by video sequences and product animation. And now, we would like to suggest that you collaborate on the fischertechnik homepage! If you…

- have your own fischertechnik page
- know of any interesting links
- can think of any ideas or suggestions for improvements

or would like to contribute anything at all to our homepage

Please send an email to fischertechnik-Selvice@fischelwerke.de

We will try to put your ideas into effect, and would like to thank you in advance for your co-operation.

Young people research in USA

In the USA, pupils and students are researching and constructing with fischertechnik, too. This is the report of Bob Banos, Pre-Engineering Academy-Director at the Galileo Academy of Science in San Francisco, California. Pupils aged between 16 and 18 developed a brilliant model of the "International Space Station" (ISS). This is their report:

"The International Space Station, a consortium of 15 countries, is on schedule for completion by 2005. It will serve planet Earth in several ways. It will serve as a permanent laboratory in low-Earth orbit to study inner space, the sea, the forests and the atmosphere, as well as serve as a launch point for future orbiting platforms and for launches toward our own moon and planets. Mankind's voyage to the stars begins here.

The VR tour (URL: www.nasa.gov/externalflash/ISSRG) takes you through the ISS. This gave the designers a conceptual basis on which to model their own design. fischertechnik robotics were used to create a 2 d.f. (degree of freedom) machine to maneuver the solar cell bays and the station in order to track the sunlight. The solar voltaics in the model provide 15 volts at around 3 amps to the station module (approx. 45 watts). Solar cell bays were designed in series within each bay and the three bays per panel were connected in a parallel configuration. Solar cells were provided by Spectrolab, inc. Sylmar, California. The habitation module is outfitted with micro diodes (red, blue) for lighting the station. A multi-vibrator (astable) circuit flashes red diodes, which serve as orientation beacons for EV activity and for station maintenance. All station lighting receives power from the cells although a backup battery system exists. Because of atmospheric (Thomson) scattering of sunlight, it is difficult to reproduce a "point source" sun in the station model.

The solar cells are 0.49 Volts, 41 ma/cm^2 boron-doped silicon. At sea level we obtained 0.35 Watt per cell. Lockheed/Martin is the prime contractor for building the space station solar arrays that will provide main power for ISS station activities.

Spectrolab, a Hughes Electronics company, manufactures solar cells for a wide array of projects. Among them are The Mars Global Surveyor, and the solar-powered Pathfinder, an airplane that broke world records by reaching (21.7 km). Spectrolab, Inc. became the largest manufacturer of GaAs solar cells in 1996."

Many thanks go to the pupils and teachers of Galileo Academy of Science.

Letter-Box

The letter-box is devoted in this issue to our "Snow Plough" model-building competition that we announced in FAN-CLUB News 2/99.

We were delighted with the response to this competition, and received a huge number of letters showing snow ploughs of every possible type. All the models were beautiful, innovative, and brilliant. We would like to take this opportunity of saying a great big "Thank you" to everybody who entered.

In order to improve the chances of winning, and to make the competition fairer, we decided to award each prize twice (5 vouchers for fischertechnik kits worth between DM 25 and DM 150), by dividing the competition into two groups: for entrants up to the age of 10 years, and entrants aged 10 and upwards.

In the younger group, Nils and Mirko Zumholz from Ludinghausen have won first prize with their snow-plough on a Cars & Trucks basis and will thus be receiving the big voucher for DM 150.00. The snow is pushed to one side by the blades which are raised and lowered automatically. This innovative vehicle is driven by an S-motor.

The second DM 100 voucher goes to Michael Herwig from Albstadt for his snow plough, which it fitted with a flashing light and a grit-scattering attachment, and is also driven by an S-motor.

Klaas Hendrik Poelstra from Dortmund designed a snow-plough with an articulated trailer. The crane can place large quantities of snow on the trailer, so that they can be transported away. Klaas Hendrik has won a voucher for DM 75.00 for this model.

Voucher No. 4 (DM 50.00) goes to Jonas Ketterer from Hamburg. During a winter holiday in Wendelstein, in the Bavarian Alps, he saw a vehicle on a rack-and-pinion railway that cleared snow off the tracks and made a model of it from fischertechnik.

David Bartl from Neuenburg sent us a picture of his machine for clearing snow off a ski piste, and this earned him a voucher for DM 25.00.

The winner of the DM 150.00 voucher in the older age-group is Steffen Scheuermann from Buchen-Hainstadt. Steffen developed this "Snow Devil", a tracked vehicle with a plough and a snow cutter. In addition to this, the Snow Devil can tow stranded vehicles away with a winch, and carries all the equipment it needs in a trailer.

The second DM 100.00 voucher goes to Jens Schmelcher from Glucksburg for his snow plough, which is designed as a tipper lorry. The model has all sorts of pneumatic components, for instance for the tip-up mechanism. He was struck by this idea for the model when he was in Norway.

Gordian Lubke from Helmstedt has designed a combined vehicle: it clears snow, rescues people buried by avalanches, removes fallen scee, and has won him a voucher for DM 75.00 The grab can shift piles of scree and any other obstacles that have slipped onto the road, and the vehicle is so highly mobile with its crawler tracks that it can help avalanche victims in the mountains. It can also operate as a normal snow-clearing vehicle, for instance in smoothing ski pistes. The grab and the shovel on this model are fully pneumatically controlled, and the drive is provided by a fischertechnik motor and remote controlled by an IR control set.

This interest vehicle is the contribution from Stefan Brausam fmn1 Deggingen, and has won him the OM 50.00 voucher. This snow-clearing vehicle works like a snow plough, and the rollers mounted. on extension arms roll the snow smooth, thus clearing a very wide path very quickly.

An extraordinarily innovative design for a "snow-melter" came from Sebastian Steiert from Villingen. The shovel is lowered when the vehicle is moving, so that it can pick up snow. As soon as the shovel is full, it swivels upwards and the snow slides down into a heated tank. This turns it into water, so that it can be emptied into the nearest brook or drain. For this machine, Sebastian will be sent a voucher for DM 25.00

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fischertechnik has some wonderful new ideas lined up this year as well, which will be available from September onwards except for the slave module, which will already be appearing in April.

The new ideas for 2000 were presented for the first time at the Nuremberg International Toy Fair, which takes place in February every year. It is the world's largest trade fair for toys, but is unfortunately not open to the general public, only to manufacturers, dealers, and buyers.

The fischertechnik was constantly crowded with not only buyers from all over Germany and many other countries, but was also potential customers from the advertising world. For instance, on the Sunday of the fair our reactive "Profi-Cartech" was feature in "auto motor & sport TV".

The new, big "Junior Starter Jumbo Pack" is recommended for making a first start into the system. This is a kit from which four different models can be built, and the fun of building them is followed by the fun of playing with them: tippers, cranes, and tow-away vehicles. The focus is on the understanding of simple functions: the tip-up mechanism, the winch, or the rotating crane arm are intended to motivate the junior engineer who plays with them to start thinking about the technical machinery one sees every day, and to understand how it all works. The kit is suitable for boys and girls from the age of five upwards.

Anyone who has already gained a little experience as a junior engineer will be delighted with the "Power Bulldozers" crawler kit. Crawler vehicles are a classic subject for fischertechnik, but the fans have had to wait a long time for a complete kit. By way of compensation, the new models such as the rescue, ski-piste, and tow-away crawler vehicles are bigger than any previous fischertechnik crawler vehicles. The models can be driven by the high-power 9-volt motors from the current Power Motor Set and even remote-controlled with the fischertechnik infra-red control system. The kit is recommended for children from the age of 7 upwards.

The Classic Line is being extended with the "mobile steam engine" model. Under this heading, fischertechnik produces reproductions of designs that can be built. The prototype of this new model was a steam engine that was once used to drive agricultural and other machinery. In the Black Forest village of Tumlingen, where the inventor of fischertechnik, Artur Fischer, was born, a mobile steam engine of this kind was still at work in a carpentry shop in the mid-1950s. Old photographs supplied the idea for the new kit. Lovers of technology will discover numerous interesting details on the model: moving piston rods, starter and drive belts, or setting brakes with brake wedges. The model has been made even more attractive with the lettering "Design by Artur Fischer".

For play and enjoyment "in the intervals", fischertechnik is widening its range of Mini Sets. Newcomers include a fire engine and a go-kart. One of the new models for 2000 is the complete "Computing Starter Kit" for connecting models to computers, a revised version of the LLWin control software, and an extension module for the intelligent interface.

Shortly after the Nuremberg fair, fischertechnik had a stand at the Didacta/Interschul exhibition in Cologne, where educational materials of all kinds are on display. Here the response of teachers was very positive, particularly to the "Focus f<its" that have been specially designed for school use, and the 3-D robot and the whole computing range.

The ten "2000 innovations" are shown in full detail in the attached brochure, "New in 2000". The extension module will be already available in April, however, so we would like to explain it briefly, also with relevance to the FAN-CLUB-model

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Instructions for building Club Model No. 16

Our Club Model is something special for computing geeks this time: a processing centre consisting of Pneumatic Robots, the Bending-Arm Robot from Industry Robots, and a few additional parts as well, e.g. for the sorting line.

The processing centre, which incidentally was designed as a working model to run continuously at the trade fairs described above is controlled by our LLWin 2.1 software, two intelligent interfaces, and an extension module, our new supplementary module for the intelligent interface (formerly known as the slave module).

The instructions enclosed with the pack show how the model is built. The parts needed in addition can be seen in the parts list. Because the “LLWin” program would be too long to reproduce here, we will make it available on our Homepage… www.fischertechnik.de under "software", ready for downloading.