

Schüler-Ingenieur-Akademie: ZELTWANGER is training up students for a career in engineering



ENGINEERS OF TOMORROW

Mössingen/Dußlingen. Granola and chocolate bars, nuts, and other candy – a pretty amazing vending machine for a school canteen. Especially when it was built by the students themselves. This is precisely what the Mössinger Firstwald Gymnasium high school is currently working towards: Since the start of the school year, ZELTWANGER has been an official education partner of the Firstwald Gymnasium in Mössingen/Kusterdingen and is working together with ten students to design and build a confectionery vending machine. “We want to lower the hurdle between school and professional life and rouse some enthusiasm for technical professions,” says HR officer Anja Gottschalk about the new cooperation with the school.

The vending machine is the first joint project as part of the Schüler Ingenieur Akademie – SIA (Student-Engineer Academy). SIA was launched by the state of Baden-Württemberg back in 2000 and was a response to the discussion about the lack of young engineers. The aim of this cooperation model was to network schools, universities, and industry more effectively and spark interest in the engineering profession.

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The SIA has been in place at the Firstwald Gymnasium Mössingen for several years and has received a great response from teachers and students alike. “The students can choose between a presentation exam or this seminar course,” explains teacher Frauke Dürr. The special thing about this seminar course is that the students become familiar with the real working world at the company and this helps them to decide whether this is the profession for them. What’s more: “The students learn to apply the theories they have grasped, which helps them to see the real purpose of learning.” Now ZELTWANGER has taken on this new kind of teaching.

ZELTWANGER is now regularly visited by ten students from grade J1 on Friday afternoons. “We have formed two groups: One group is programming while the other is in the training workshop,” explains Gottschalk. Writing business plans, ordering components, programming, drawing circuit diagrams, milling and turning at the machines in the apprentice workshop: The students follow the entire production workflow throughout the school year. They get involved in all aspects and get to know every step of the production process. They are mainly instructed by trainees at ZELTWANGER. “It is important to us that the trainees do this,” says Peter Kärcher, Instructor at Zeltwanger. Together with Ulrich Sensbach, mechatronics teacher, he is available to help apprentices and students with advice and guidance. In class, the trainees are able to demonstrate what they have already learned. “They enjoy sharing their knowledge and this is very motivating.”

[“The students are engaged, give everything a go, and have accomplished a lot.”](#)

Through the SIA, students learn a craft from scratch and in real-life conditions. At the company, they get an insight into the reality of professional life. “The direct experience here is very important for the students – it helps them make life decisions,” says Dürr. While most of the young people haven’t made up their minds yet, at least some of them will start to envisage a career in mechanical engineering. “Most of us probably don’t know what to do after we graduate from high school,” says high school student Philipp Speidel. In the SIA at ZELTWANGER, the students get to try out a profession and everyone is

excited about working on the machines. "The students are engaged, give everything a go, and have accomplished a lot," praises Sensbach.

This means that the SIA project at ZELTWANGER has already reached a crucial point: Sparking the students' curiosity about the mechanical engineering industry and arousing enthusiasm for technical professions. This is also important for the company's own youth outreach: "We want to establish initial contacts so that the students contact ZELTWANGER if they ever have to complete internships during their studies or if they are interested in apprenticeships," says Gottschalk.

From January to March, the ten high school students are being given time to write their program and manufacture the components in the training workshop. The individual parts will then be assembled in April. At the end of the school year, the vending machine that they have built will be installed in the school. And we are sure that it will be a popular addition.