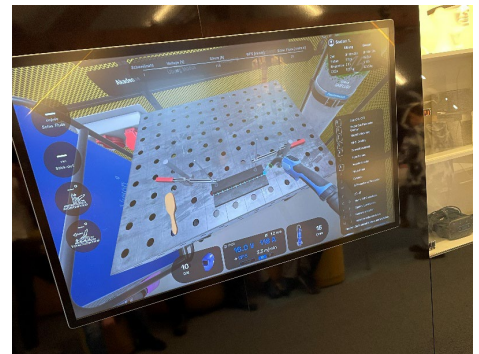


Junior Maker Pioneers: VR welding simulation and 3D printing as a bridge between digitalization, education, and industry

As part of the FFG project Junior Maker Pioneers, initiated and led by the GSM degree program, the Steyr campus of the University of Applied Sciences Upper Austria is opening up new avenues to technology, digitalization, and sustainability for children and young people aged 8-14 from the region. The aim is to spark technological curiosity at an early age and promote practical skills for the future – always in close cooperation with regional companies and modern digital technologies.

Every two weeks, the Junior Makers work on specific projects such as building solar ovens, small hydroelectric power plants, or electrifying used go-karts. In addition, they learn about various digital and industrial technologies—both on campus and directly at corporate partners' facilities.

A recent highlight was a visit to voestalpine's 3D Competence Center, where the children were able to experience state-of-the-art scanning and 3D printing technologies and assemble and take home 3D-printed objects. Another milestone was virtual welding in DigiSpace at the Steyr campus, which impressively demonstrated how digital simulations can facilitate sustainable access to complex industrial manufacturing processes.



With the help of VR glasses and welding simulations, participants were able to gain their first experiences with welding technology in several sessions – safely, resource-efficiently, and playfully. Building on this, the next step followed: at an external provider of children's welding workshops, the Junior Makers worked on real workpieces and put what they had previously experienced virtually into practice.

This combination of digital simulation and hands-on application is exemplary of the educational approach at Campus Steyr: Digitalization is not taught in isolation, but is understood as an enabler for practical training, promoting young talent, and fostering innovation. This opens up valuable opportunities for companies in particular - from early enthusiasm for technology to new forms of knowledge transfer and long-term retention of skilled workers.

The Steyr Campus would like to express its sincere thanks to the partners involved, voestalpine, Dig in Vision, and Patrick Pammer, for their generous support and the active cooperation between the university, industry, and the region.

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