

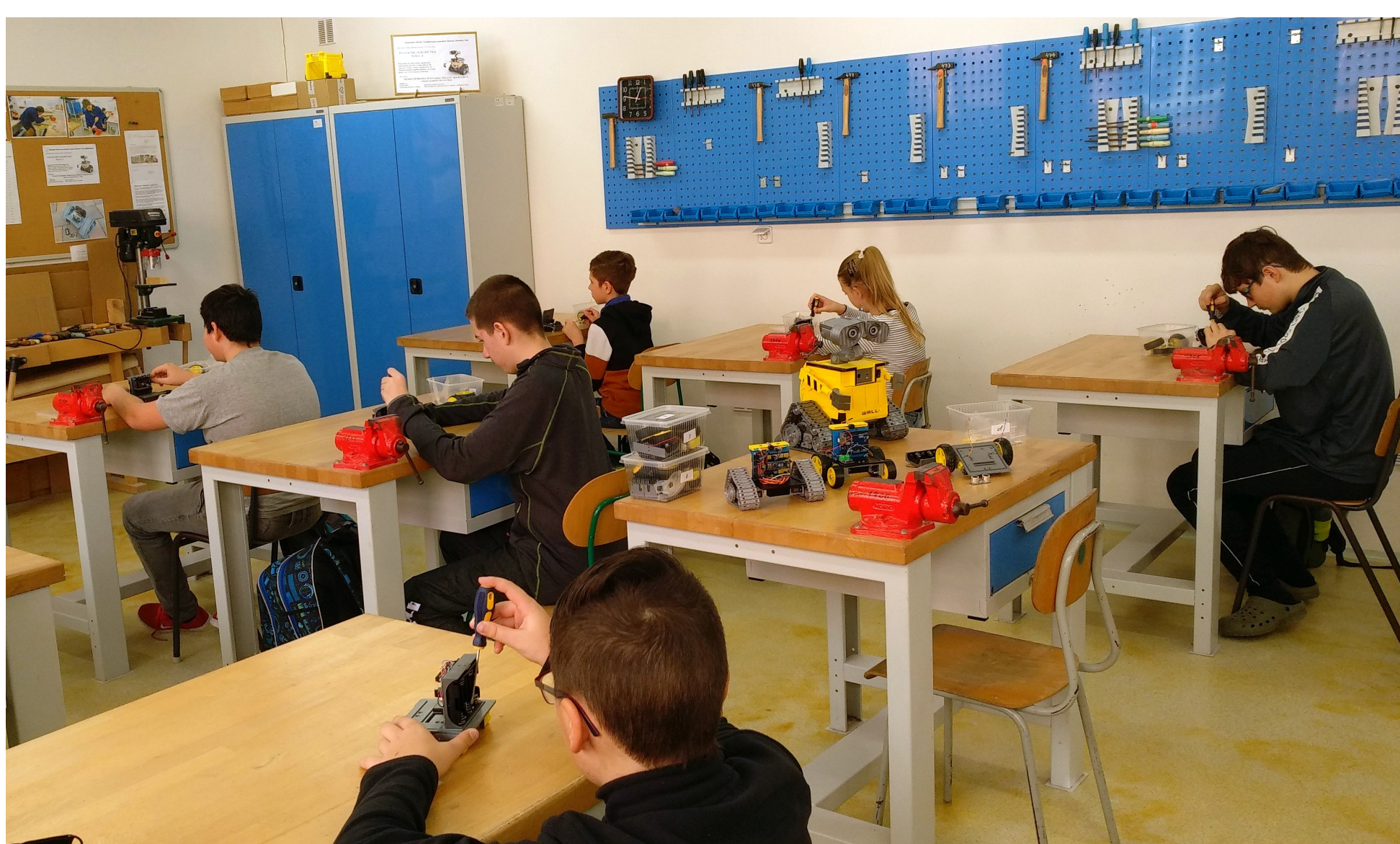
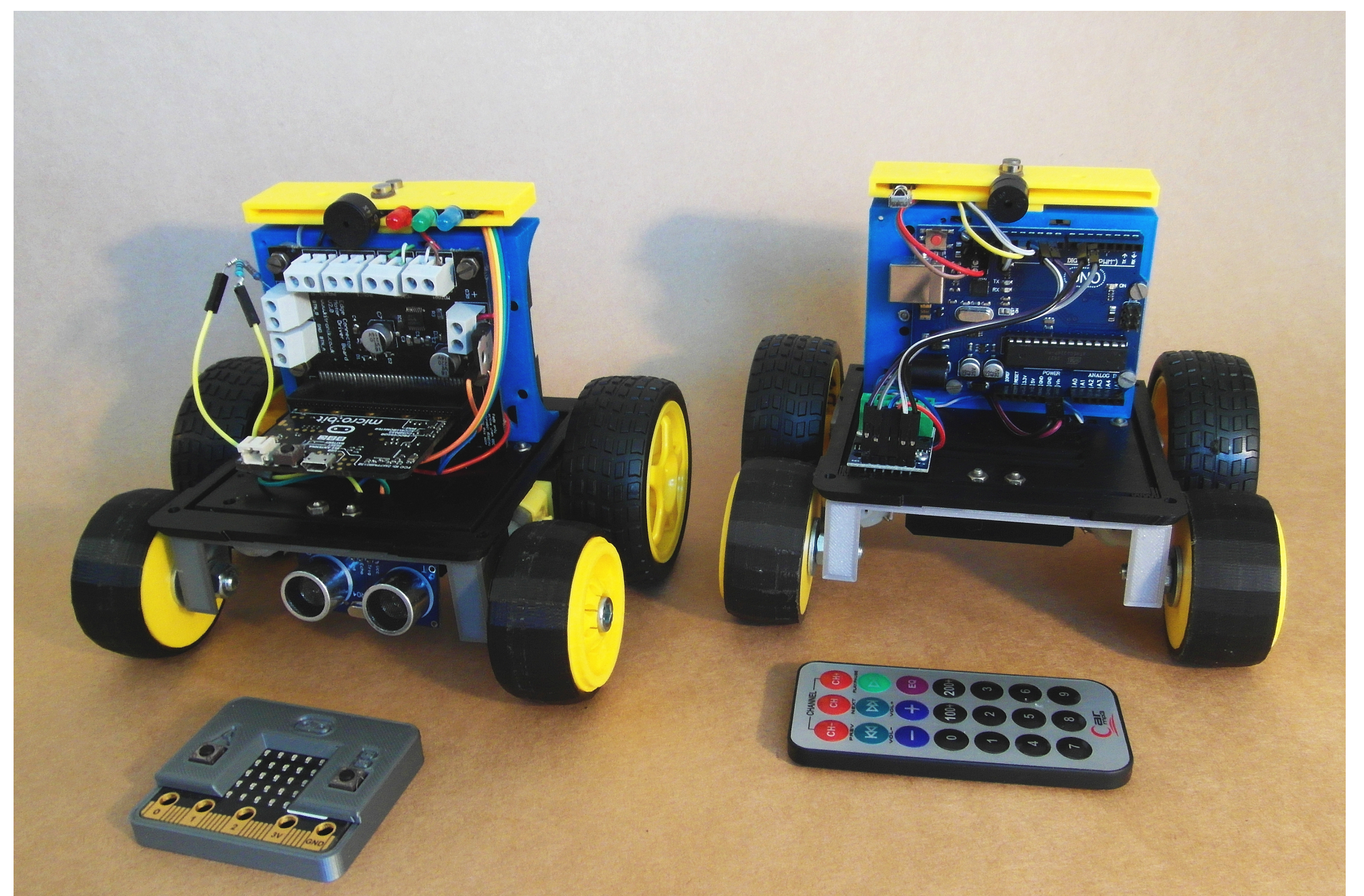
TECHNOLOGIES IN STEM EDUCATION

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ENGINEERING IN SECONDARY SCHOOL

Younger generations take electronics as a normal part of their lives and lose interest in "how these things work". Our project shows students the modern world of technology. „Engineering in secondary school“ teaches them to understand how devices work, leads them to understand and forces them to think in context.

The basis of the project is the vision to build a WALL-E robot model from an American film. The robot is designed as an expandable kit from the simplest version with a wheeled chassis on the motherboard, to which we can then add other parts. The final product is a functional WALL-E robot with a crawler chassis made on a 3D printer with a remote control.



The project is unique in connecting many subjects such as technology, physics, computer science, robotics, working with a 3D printer and mathematics. It is intended for children from the fourth grade of primary school. The pace is chosen according to the student's abilities. The most challenging, which needs a strong interest in technology, ends in the eighth grade with the construction of a complete WALL-E.

Conclusion: The project is a way for students to learn the basics of electronics and mechanics. For some students it will bring only basic knowledge, for others it will bring wider knowledge. But it has the potential to find talents that may be motivation for their own work and support their creativity and future direction.