



Intelligent mirror

Countries:	Slovenia	Poland
Suitable for grade:		2 - 3
Specialization:		Mechatronics
Project teacher:		Beata Organ

Project description:

The goal of the project is to build an intelligent mirror, which after detecting a person standing in front of it, will display information such as time, date, weather information, world news, etc. The construction should consist of a monitor placed behind the mirror (a Venetian mirror) and a Raspberry module that performs the function of a control module. The designed construction should be made carefully in accordance with WHS regulations.

Project tasks:

Student #1 (PL):

- cooperation with the SLO student (determining the size of the mirror, orientation - vertical / horizontal, the type and method of displayed information, the method of control - locally or remotely, etc.)
- choice of the LCD monitor and adapting it to the needs of the project
- preparation of a mirror with appropriate dimensions
- construction design with space for all elements (Raspberry Pi, power supply, etc.)
- assembly of a sensor detecting the presence of a person in front of the mirror
- model operations test
- preparation of a manual in Polish and English

Student #2 (SLO):

- cooperation with the PL student (determining the size of the mirror, orientation - vertical / horizontal, the type and method of displayed information)
- assistance by the choice of LCD monitor
- selection of a sensor that reacts to the person in front of the mirror
- Raspberry Pi configuration for SSH communication
- software installation
- writing a program that displays information and responds to information from the sensor
- preparation of a manual in Slovenian and English

Success criteria:

The project will be successful when the model of the interactive mirror will perform the assumed functions: information will be displayed in accordance with the assumptions at the moment of detecting the person in front of the mirror.



Co-funded by the
Erasmus+ Programme
of the European Union



Developed hard skills:

Programming, soldering, drilling, mechanical treatment of materials, computer graphics, computer networks.

Developed soft skills:

Cooperation, working with computer, planning, teamwork, tracking progress, communication in foreign language, responsibility, compliance with agreements, respect deadlines, problem solving, finding and processing information, design thinking, following safety and ergonomic rules.