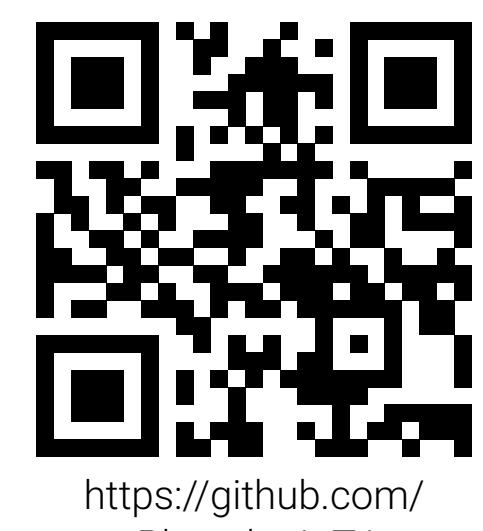


Integration into Industry 4.0

System for automatic monitoring
of industrial production

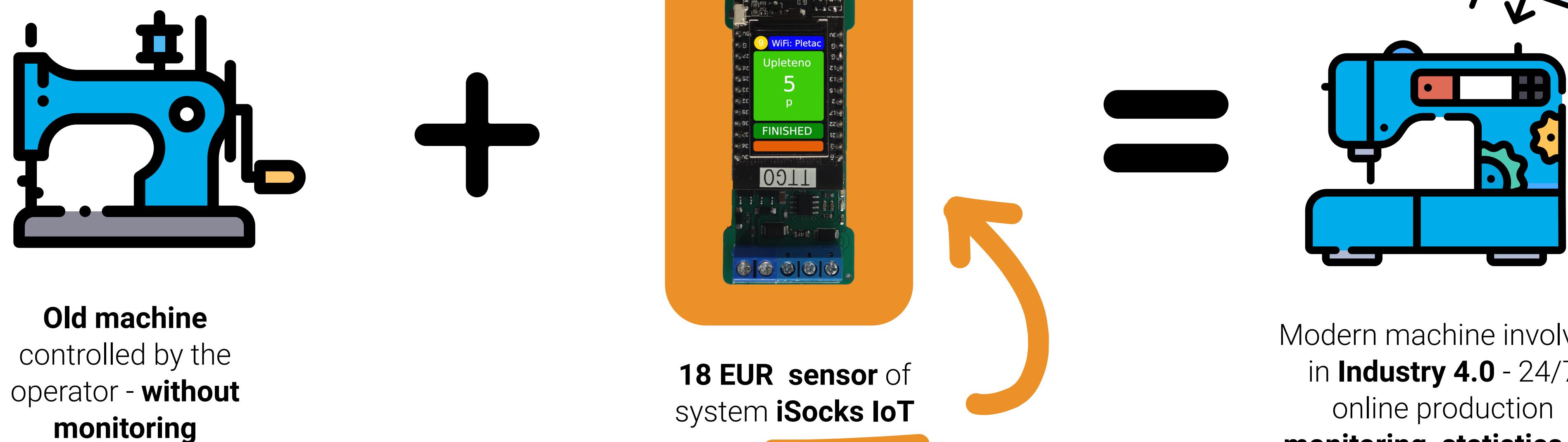


Jakub Andrysek

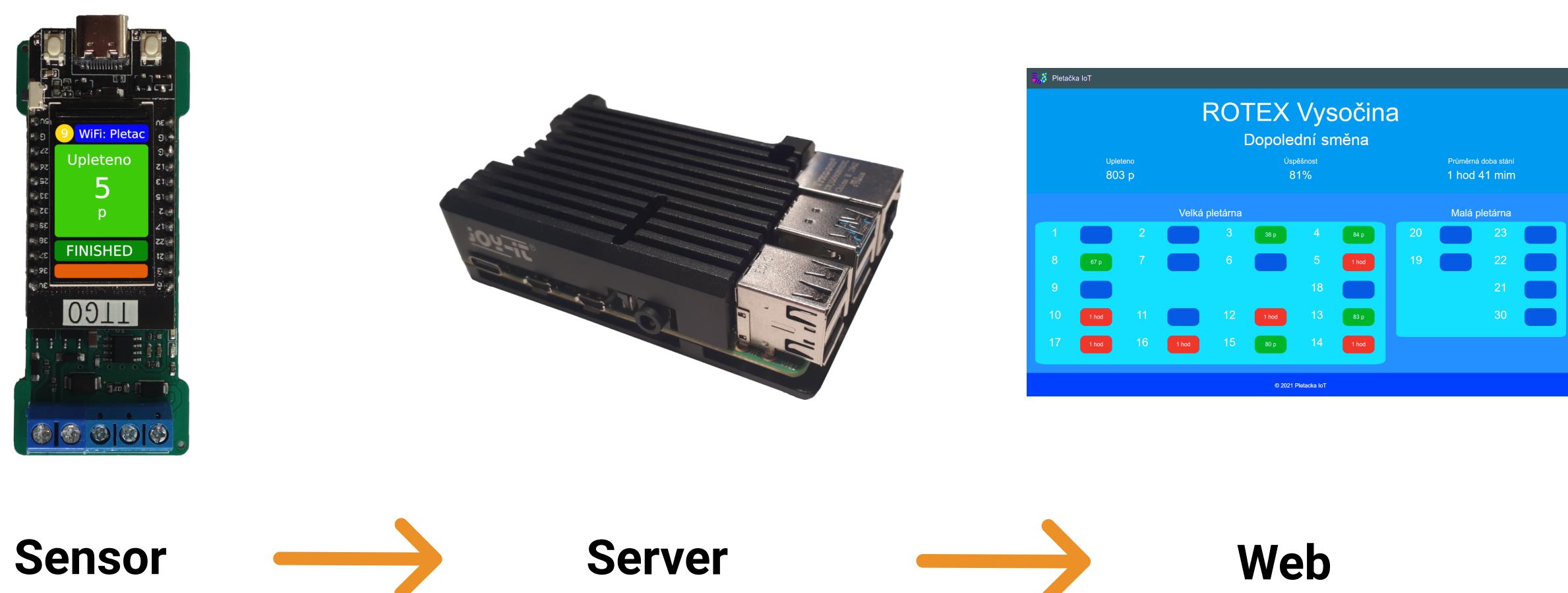
What is iSocks IoT?

iSocks IoT is a system for **automatic monitoring** of industrial production and its **implementation** in practice.

The system was designed as a **universal platform** for monitoring production machines, with a primary focus on knitting machines.



System model



It consists of a **sensor** part, a **web server** and a **support server**, which controls the operation of the entire system. All parts communicate with each other via WiFi connection.

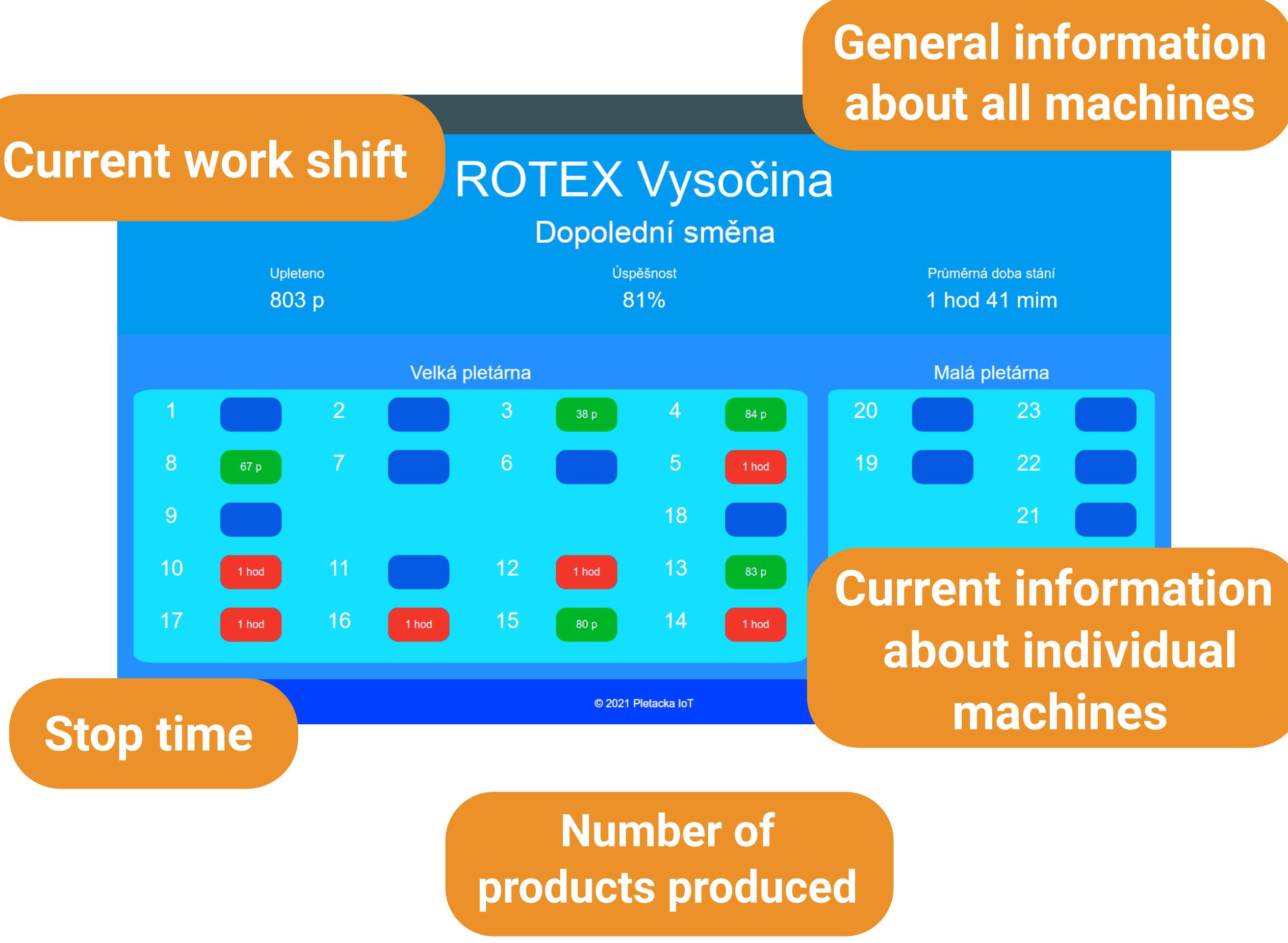


Deployment

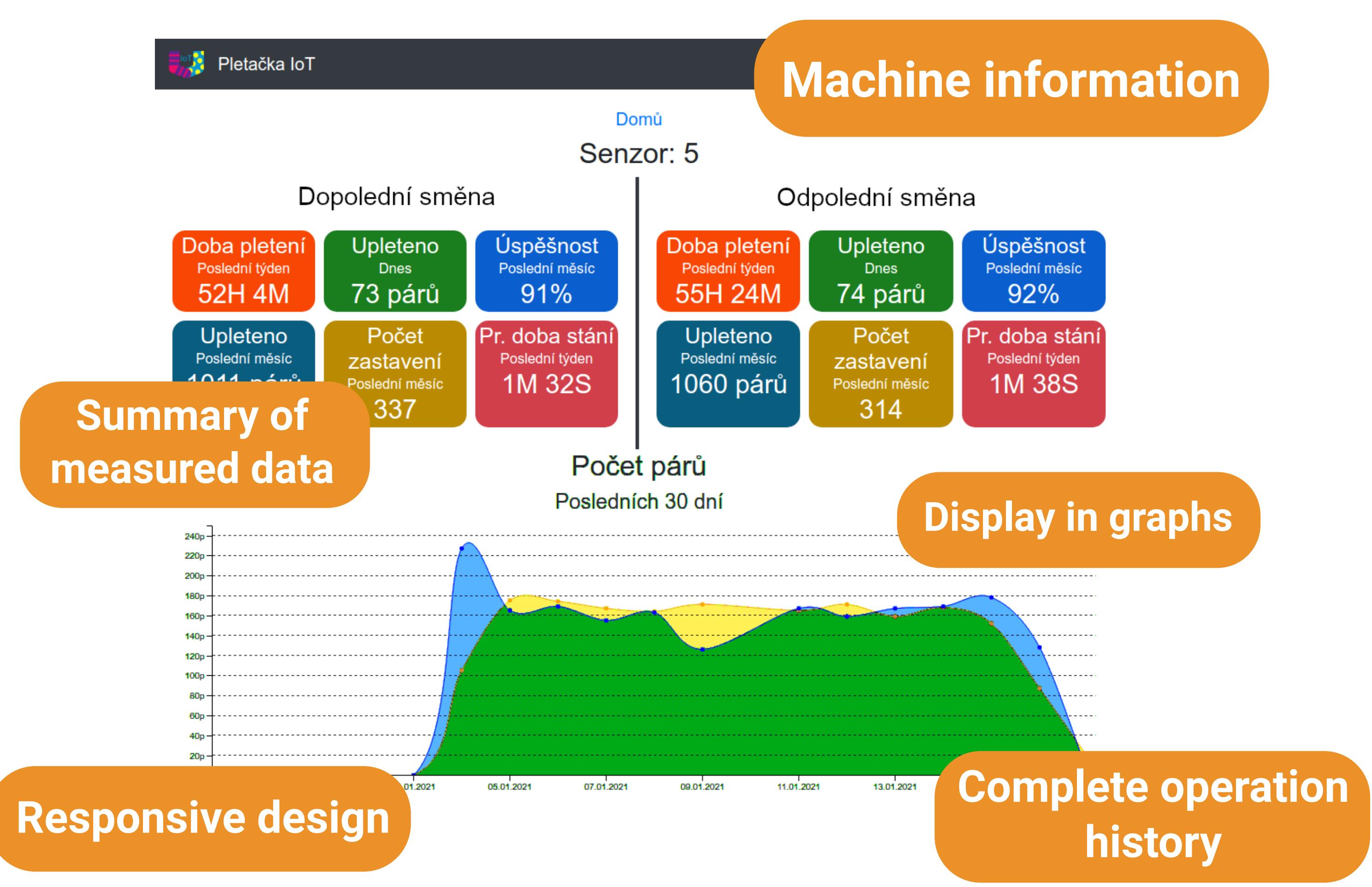
The **iSocks IoT** system is used in the Rotex Vysočina company on **10** sock **knitting machines**. The company works in **two shifts** and produces about **12,000 pairs** of socks a month. The system ensures constant monitoring of selected machines and has recorded over **half a million** knitted **socks** during its operation



Home page



Machine page



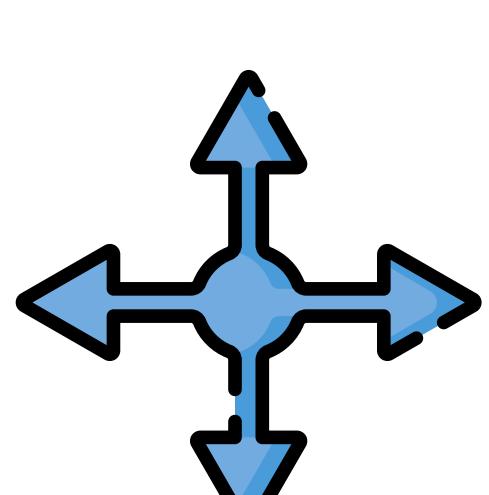
Conclusion



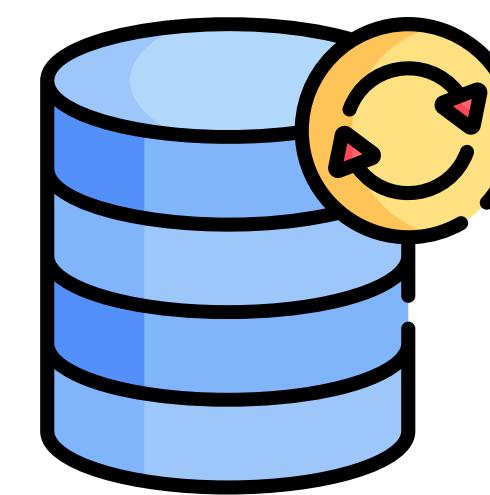
The advantage of the project is its **low purchase price**, each sensor can be manufactured for **18 Euro**.



All measured data are stored **securely** on a server **in the company**.



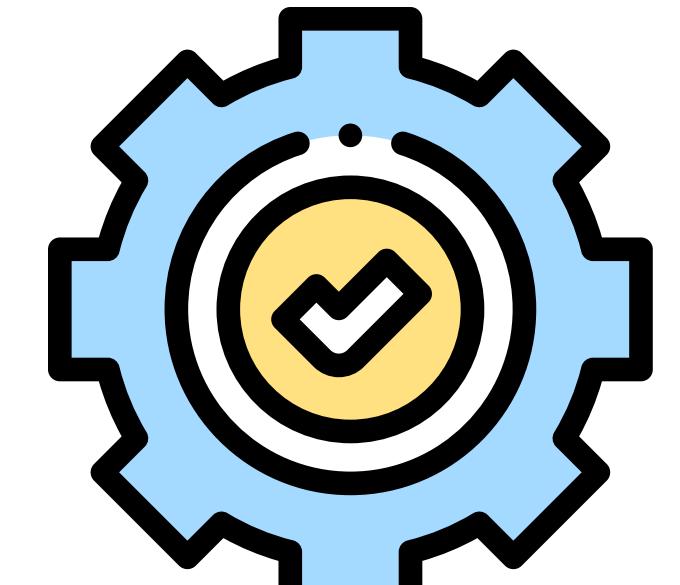
The sensors can be easily **edited** and **moved** between machines.



The system is regularly **backed up** allowing easy recovery in case of the system failure.



Due to the **modular input** voltage, the sensor can be connected to **most devices**.



Easy installation of new sensors using two cables.