

Integration into industry 4.0

System for automatic monitoring
industrial production

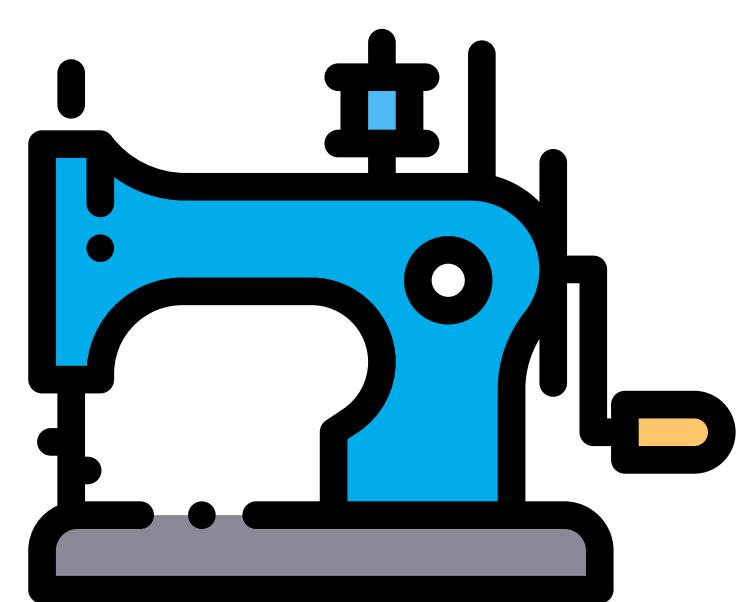


Jakub Andrysek

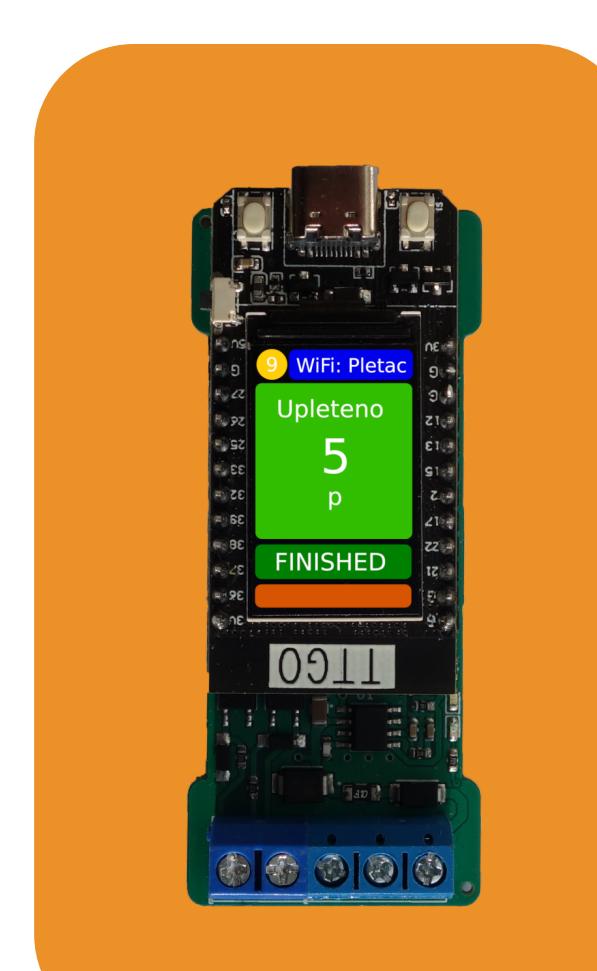
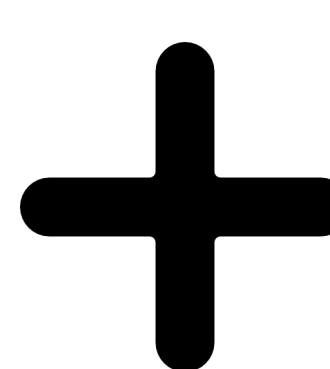
What is Pletačka IoT?

Pletačka 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.



Old machine controlled by the operator - without monitoring



18 EUR sensor of system **Pletačka IoT**



Modern machine involved in **Industry 4.0** - 24/7 online production monitoring, statistics, ...

System model



Sensor → Server → Web



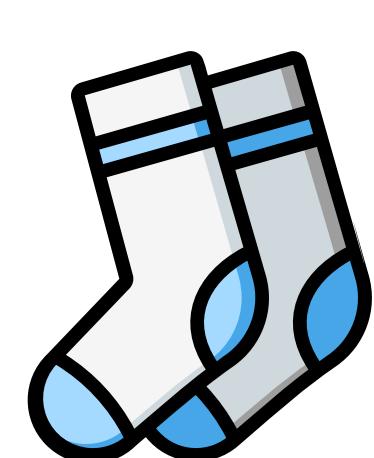
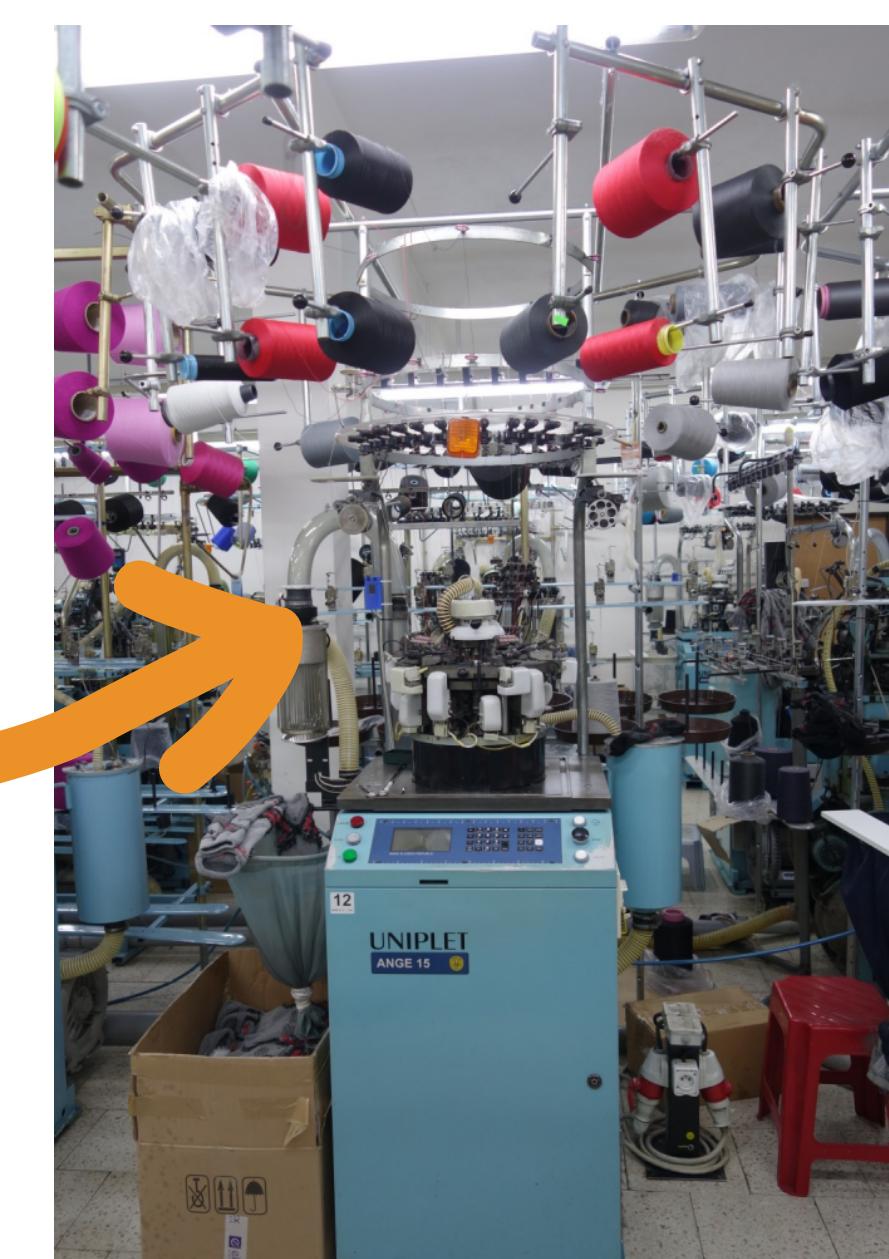
It consists of a **sensor** part, a **web server** and a **support server**, which controls the operation of the entire system. All parts communicate with each other via WiFi connection.

Deployment

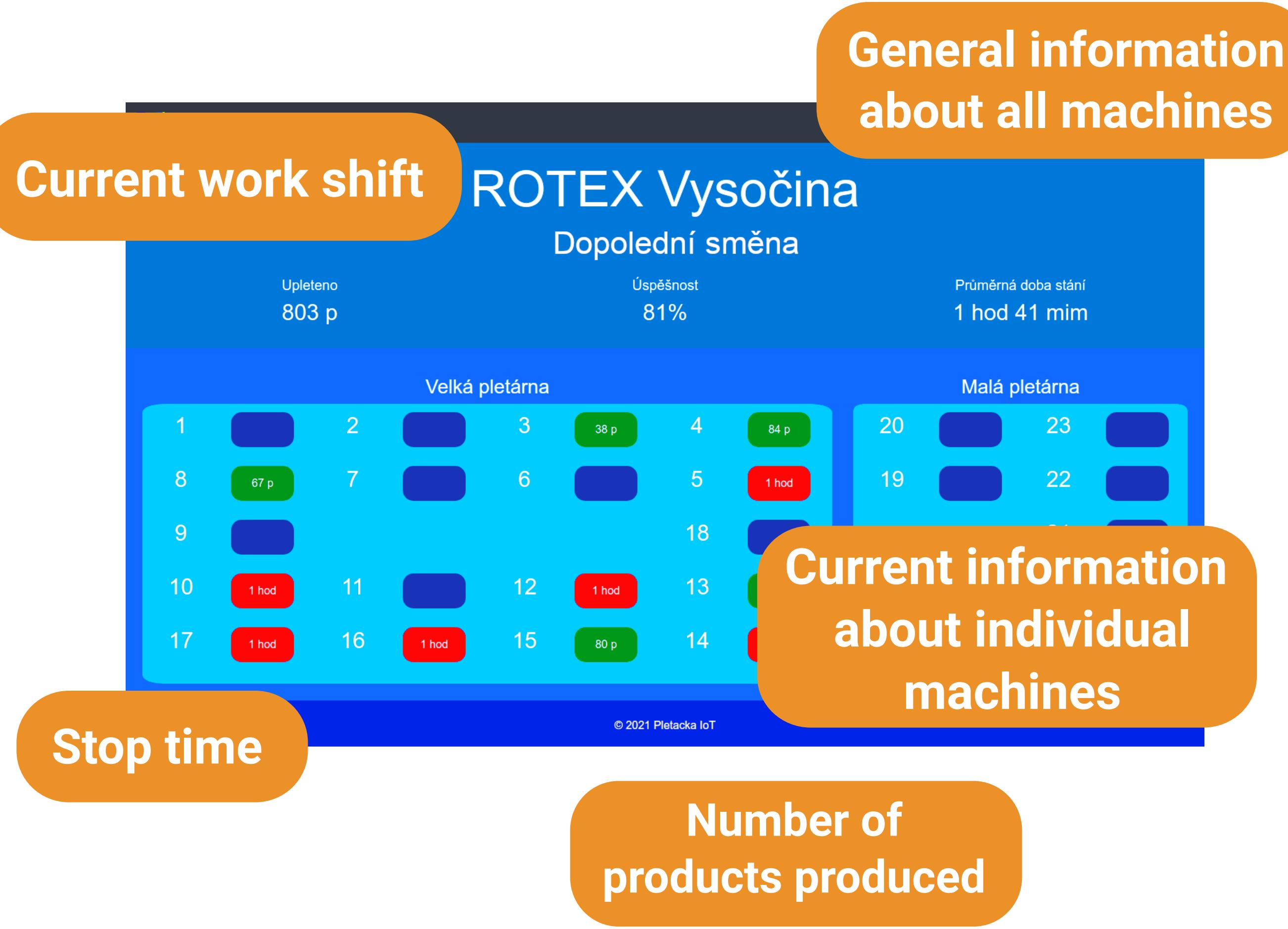
The **Pletačka IoT** system is used in the Rotex Vysočina company on **10** sock **knitting machines**.

The company works in **two shifts** and produces about **12,000 pairs** of socks a month.

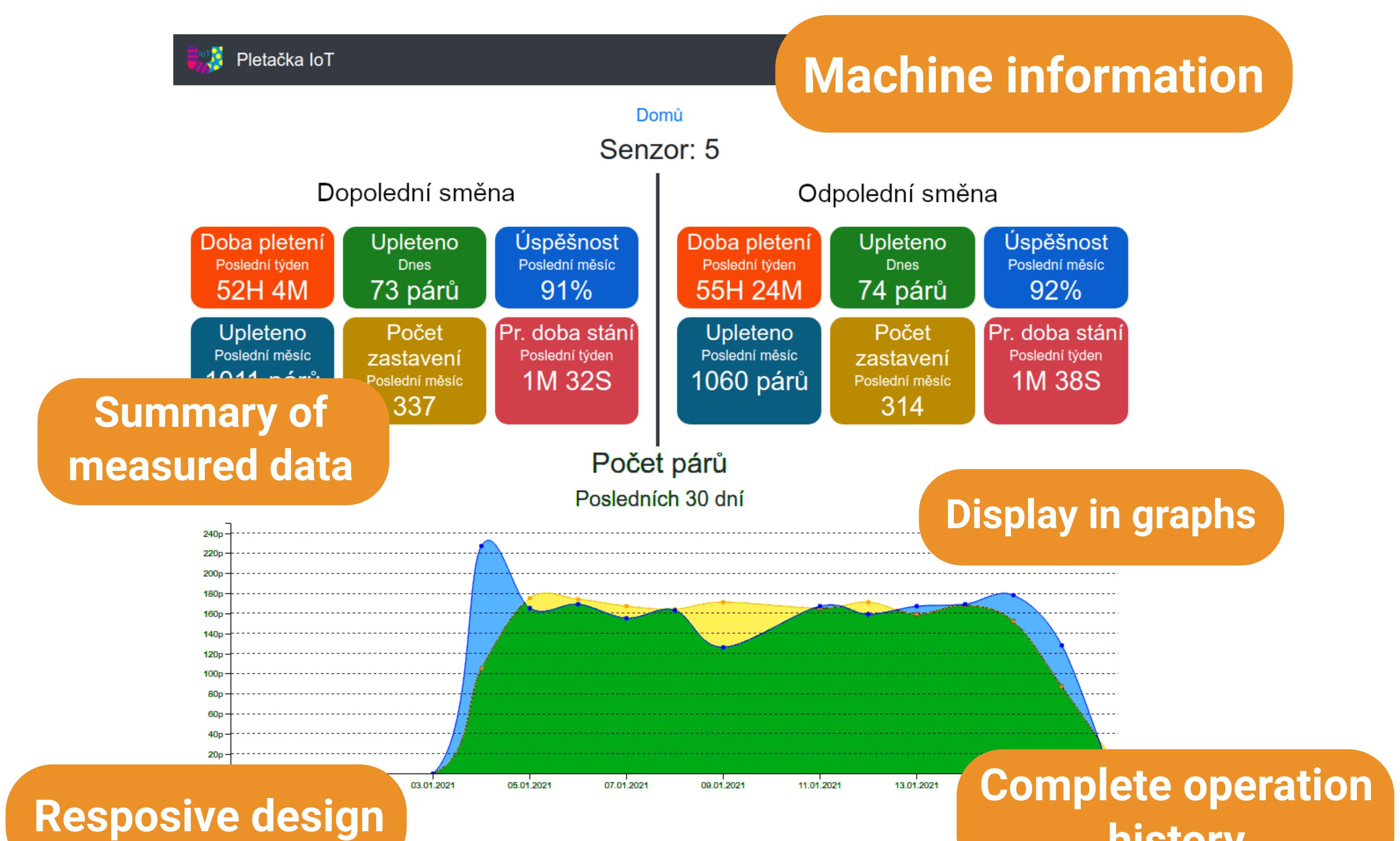
The system ensures constant monitoring of selected machines and recorded over **half a million** knitted **socks** during its operation



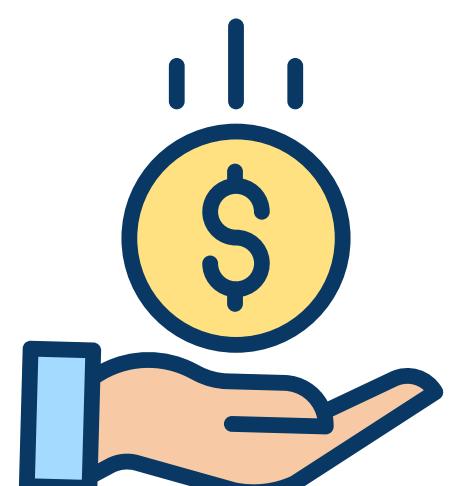
Home page



Machine page



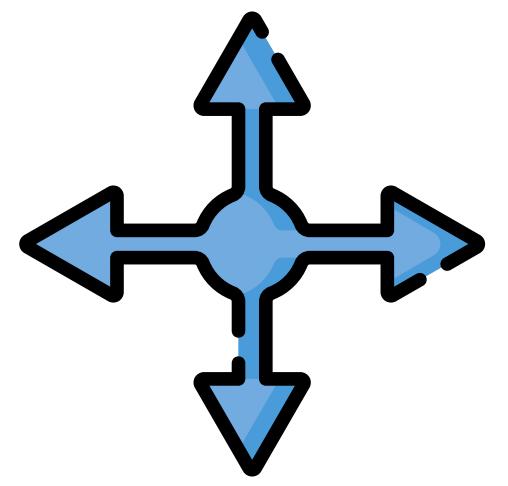
Conclusion



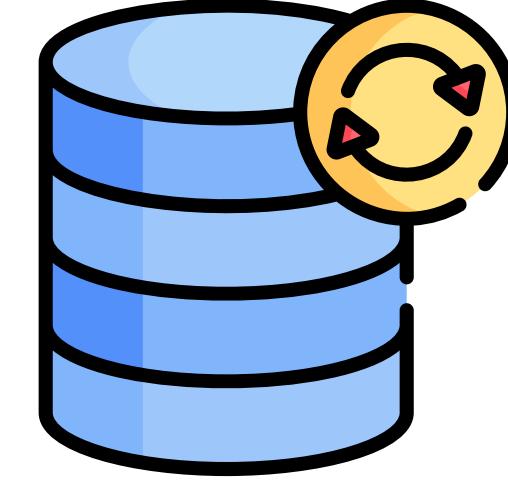
The advantage of the project is its **low purchase price**, each sensor can be manufactured for **18 Euro**



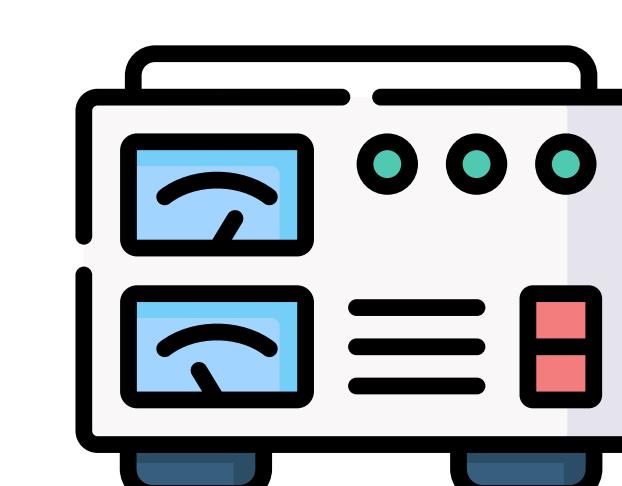
All measured data are stored **securely** on a server **in the company**.



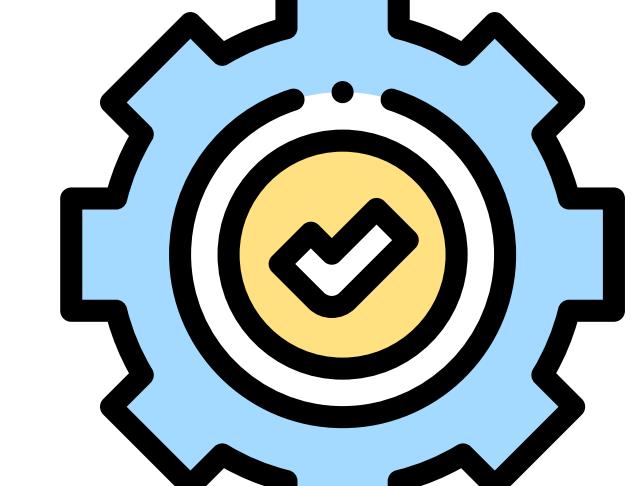
The sensors can be easily **edited** and **moved** between machines.



The whole system is regularly **backed up** in case of unexpected errors.



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



Easy installation of new sensors using two cables.