

Smart housing

REFERENCE 2020



INTRODUCTION

Cleverex s.r.o. is a Czech company focusing on industrial and home automation for small and mid-sized projects. Cleverex focuses on "intelligent living" with a high level of comfort and luxury. Cleverex's smart building also ensures operating cost savings which are appreciated in the modern world.



ABOUT THE PROJECT

ARANKA is one of the ecological mobile units from hideandseek next to MADLENKA (title page) and JASNĚNKA which has all the parameters of the modern way of living.

The winning project of Designblock 2019 connects a unique experience of staying in nature with comfort, luxury and reliable technology. Amazing craftwork gives the sense of cosiness, maximal connection to the nature outside while still having hidden technology that controls the mobile unit.



Picture 1 - Mobile unit - ARANKA



Cleverex offers an intelligent solution which ensures quality control of the unit using mySCADA operator's panel (myPANEL) as the "brain" of all processes.



Picture 2 - Diagram of the technology

On the picture 3, shows the interior of the mobile unit including the myPANEL. Normally the panel is hidden behind the wall so the user can see it only if necessary.



Picture 3 - The inside of the mobile unit - on the left side the myPANEL is visible



THE PROJECT - VISUALIZATION

The technological components used for smooth and effective usage of natural resources are smartly hidden near the fireplace.

Natural resources:

- Biodynamic lighting system
- Solar system responsive to current consumption (including the solar forecast)
- Water management system with rainwater filtration
- Combined electric-gas heating
- Air quality monitoring system

All components are monitored and controlled with industrial automation technology which ensures reliable functionality even in unusual conditions (different to usual household): large temperature range, moisture resistance as well as resistance to vibrations and shocks while transporting the mobile unit.

myPANEL (mySCADA's operator's panel) represents the central element of the whole system. It informs about the **status of the system** in graphical form, it **logs all data** for later evaluation, communicates with the remote systems via internet connection, **offers API functions** for monitoring the system and voice interaction.



Picture 4 - Climate in ARANKA mobile unit (temperature, humidity, CO₂)



CUSTOMIZED PROJECT VISUALIZATION

mySCADA enables you to create customized visualization based on the requirements the client needs. In this case, the specific request was a visualization that matches the luxury interior of the mobile house including colors, fonts, each text...it also has to be an aesthetic experience indeed.

Picture 5 shows the water level in each tank as well as the water consumption during use.



Picture 5 - The unit has 2 water tanks (drinking and rainwater)



ADDED VALUE AND CONCLUSION

Based on the experience of users, myPANEL greatly connects the **monitoring**, **controlling** and the technological skills of ARANKA guests. myPANEL shows that it is an effective tool combining industrial application with a user-friendly environment and all that with a **good looking design appearance**.

myPANEL is almost unlimited in implementation possibilities (either functional or graphical), there are no "template" limitations as is usual in other home automation solutions.

What the implementer appreciates the most is the that mySCADA not only meets requirements but also surprises with the options that exceed expectations.







