1. Automation of a Filling Station

Convert an existing outdated filling station to realise a communication between WinAC RTX Box and PCS7 (Simatic Manager and WinCC)

Tasks:

- evaluation of possible PCS7-scenarios
- definition of hardware requirements as well as choice of needed components for interaction with WinAC RTX Box and PCS7
- reconstruction and comissioning of the new filling station
- implementation of a PCS7 user interface (with WinCC)

2. Enhancement of the existing GST-Model House further automation equipment

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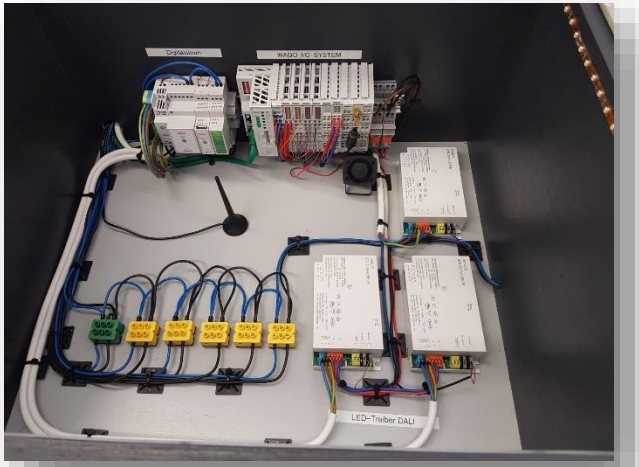
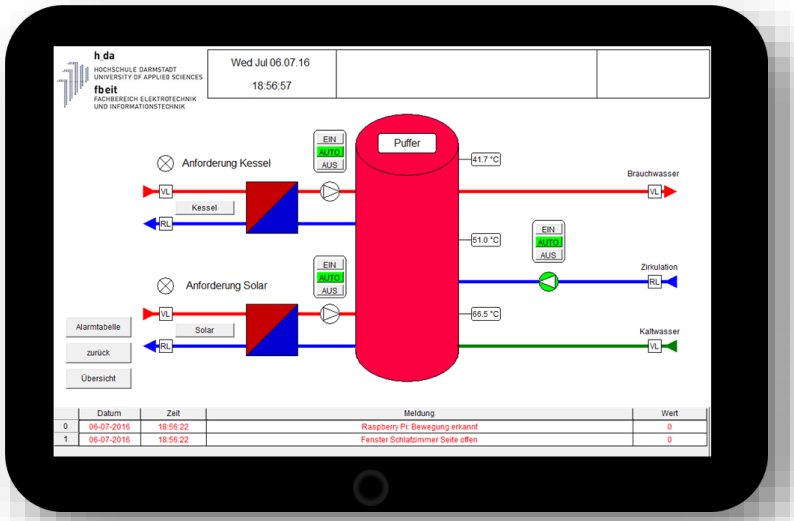
Based on the existing facilities the model house should be expand with additional automation equipment like blinds, heating, cooling, etc.

Tasks:

- planning and realisation of an attractive Interieur Design
- planning and selection of suitable automatization facilities for different automation scenarios of the model
- installation of the new house components/facilities
- evaluation of further
- evaluation of further extension measures for future student groups

2. Enhancement of the existing GST-Model House with further automation equipment





3. Application of a drone for automatic acquisition of building facades

The project represents an extension of a pilot survey realized in cooperation with **Bilfinger Bau Performance GmbH** and **Open Experience GmbH**.

The goal is to achieve an automatic acquisition of building data and to create a simple Java program on Android. Furthermore an autonomous possible control/navigation of the drone on the buildings is sought.

Tasks:

- 3D-navigation for general orientation of the drone
- Images based control of the drone for analysis the surface of the facade.
- Automatic post processing of the images for evaluating defects on the surface

3. Application of a drone for automatic acquisition of building facades

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