

Module: Intelligent house 4.0

Submodule: Installation and configuration of smart light control

Student's information – Additional tasks

Additional task 1 - information:

The existing energy-saving bulbs should be replaced by RGB-LED bulbs. Brightness and colour of the LEDs should be controlled by the same app as the two-way switching (e.g. by the Bosch app).



Hue bulbs

Hue bridge

Tasks:

1. Install and configure the Phillips Hue-System in that way that you can control the LEDs by the Bosch app.
2. Document every single working step of the installation and configuration process
3. Document the solutions for every problem that disappears during the installation and configuration process.

Additional task 2 – information

In addition to the flush-mounted switches, the manufacturer of the smart home system that you use also offers the switch types "Universal Switch" and "Universal Switch Flex" for lighting control.



Universal Switch



Universal Switch Flex

Tasks:

1. Integrate these switches into the existing Smart Home lighting control.
2. Document this step and describe the additional options these switches offer compared to the flush-mounted switch.

Additional task 3 – information

You have successfully changed the lighting control in the living room of the customers to smart components and you have documented this work. Now the customer wants to be able to control the light in the living room via voice commands in a further step.

Tasks:

1. Explain which intelligent voice control system are currently available for this task (that is, in 2018)
2. Implement the customer's order
3. Document every single working step of the installation and configuration process
4. Document the solutions for every problem that disappear during the installation and configuration process.

Additional task 4 – information

The graphics "Network structure smart home" shows all the components that will be necessary for the function of a smart home installation.

Tasks:

1. You will control the smart home devices by the app on your mobile device. The mobile device is connected with the WLAN. Explain the way of communication when you control the smart switch.
2. You will control the smart home devices by the app on your mobile device. The mobile device is connected with the WLAN. Explain the way of communication when you control the Philips bulb.
3. You will control the smart home devices by the app on your mobile device. The mobile device is connected with the mobile phone network. Explain the way of communication when you control the smart switch.
4. You will control the smart home devices by the app on your mobile device. The mobile device is connected with the mobile phone network. Explain the way of communication when you control the Philips bulb.