Project 3:

Usage scenario

Kate is a mother of two sons which she got from her husband Nic. She works part time as a teacher in primary school located about 5 kilometers away from her hometown.

Her daily workday routine starts at 6 am. Because she loves to get woken up by the sunlight (but there is not always one so early in the morning) the lights turn on and gets brighter and brighter till they finally wake her up. In all other rooms except the bed rooms the shutters going up to let in sunlight again, while the music is playing gently.
- Philips Hue (off)
- Servo (on - shutter are down)
- Kodi (pause)

After the shower she goes to the kitchen to have breakfast. Due to the high humidity in the bath the windows open. The time in the kitchen is always used to find out what is going on in the world, so the radio automatically starts echoing.
- Humidity sensor (> 50)
- Servo (for windows)
- Kodi

After some time for her own, it is time to wake up her two sons. They both visit the same school which Kate is teaching in. She turns up the shutters and turns on the light in their bedrooms remotely and prepares the breakfast for the two.
- Servo (on - shutter down)
- Led strip (off)
- Button

At 7 am everyone is ready for school, so they leave the house together. Kate activates the alarm system and leaves the house. Unfortunately, she forgot to lock the door. 10 minutes later, the motion detectors detect suspicious movements around the house. The alarm system automatically locks the door and triggers the alarm.
- Lock (off - door is open)
- Motion detector
- Philips Hue turn off (timebased)

At 4 pm the children and her are ready to leave the school and go home. When she enters the front door after some validation, the alarm system turns off and some lights are turned on in the entrance hall.
- RFID
- Lock
- Philips Hue on

After dinner the family sits in the living room and watches a little bit TV. Nic uses voice commands to initiate cinema lighting in the room. The light dims automatically and the window shades go down. Then he chooses a film again by using voice commands.

- (movie mode, voice command, kodi, servo, philips hue)

At 8 pm it is time to bring the children to bed. The rooms are personalized for the boys needs. One of the boys is afraid of the dark, so the light dims automatically but does not turn off. The other one likes to fall asleep with a little bit of music in the background but when the boy falls asleep the music turns off automatically to save energy. These two features are time controlled so they are activated when it is 8pm . The shutters close.

- Philips Hue
- Shutter-servo (off - so shutter are open)
- Kodi

When the parents go to bed the security system is activated: all doors and windows are closed and shut and the alarm system is activated. Also the motion detectors which are installed in the garden are activated.

- Lock (off - so door is unlocked)
- alarm system
- Servo (off - so shutters are up)