Smart Garage

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Model

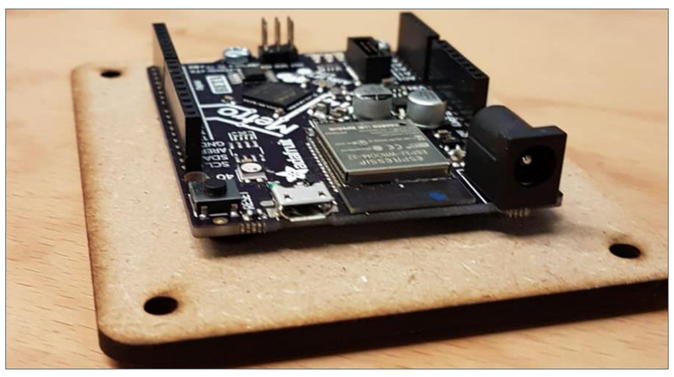
This prototype was built to demonstrate and test the various functions and sensors. Here shown is the front of the Smart Garage.

Structure and architecture

Three essential factors play together to ensure that the Smart Garage works:

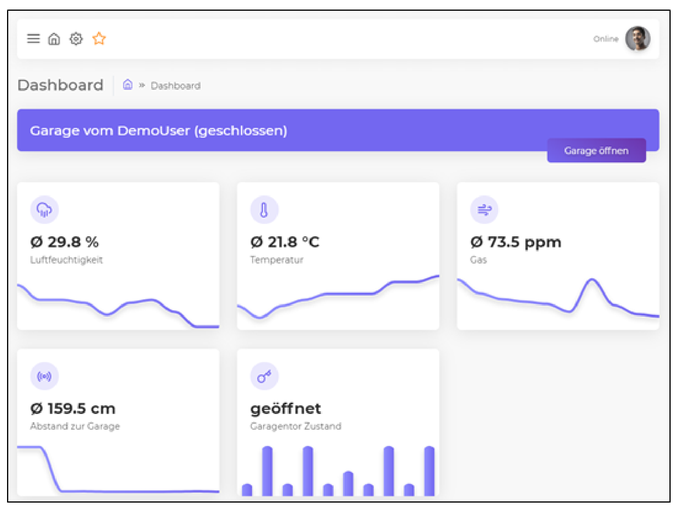
- Firebase Infrastructur
- Microcontroller and Sensor technology
- Web application

These three factors enable communication with the garage. The user can store his or her entries using the Web application. These are passed on via the Firebase infrastructure to the microcontroller, which ultimately controls the garage and monitors everything.



Web application

The displayed dashboard shows the collected sensor values. The "Open Garage" button can be used to control the garage, and it also displays the status of the garage. In this case the garage is closed and can be opened.



Business Model Canvas:

The business canvas model (bmc) is used to set up a strategy for entering the market. The following scheme shows the bmc positioned for the Smart Garage:

Key Partners
Adafruit:
- Microcontroller
- Sensors
- Hardware Support

Specialist retail:
- Media Markt
- Saturn
- ...

Online shop:
- Amazon
- Ebay
- ...

Bank / Investor

Key Activities
- Building components
- Run and develop App / webservice

Key Resources
- Software-developer
- Microcontroller
- Sensors
- Processing line
- Office

Value Propositions
Problem solver:
- Closes cap in smart home sector
- Facilitate interaction with garage

USP:
- Modular structure
- Individually expandable
- Integration aspect

Customer Relationships
- Social-Media-Marketing
- Direct & online
- Fairs & video-Messages

Channels
Online shops:
- Own shop
- Partner (Amazon, Ebay, ...)

Direct sells through specialist retail

Customer Segments
- Technology excited
- Generation X & Y

Current situation:
- Buying house
- Building house
- Owning house

Interests:
- Smart Home
- IT
- Laziness
- Technology

Cost Structure
Fix costs:
- Office
- Processing line & warehouse
- Personal
- Server

Variable costs:
- Material
- Shipping
- Fees to third parties

Revenue Streams
1. Smart Garage sells
2. Additional sensors
3. Premium functions in app / webapplication
   → Abonement

Project description

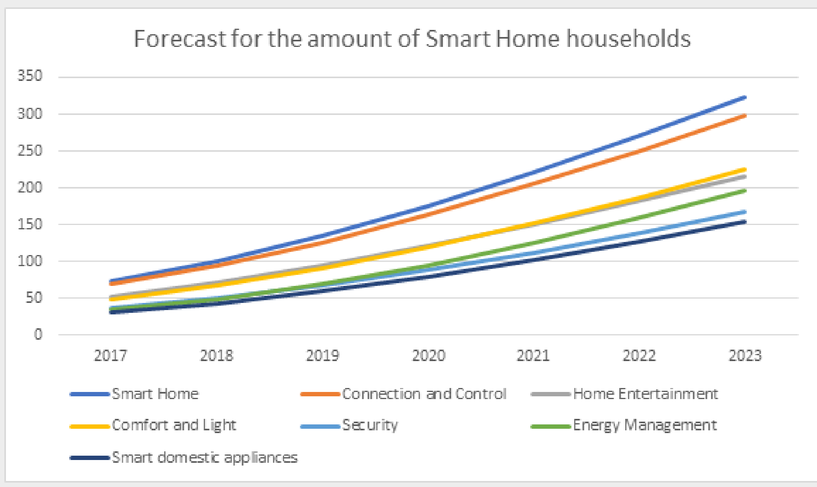
By choosing the garage as the project object, a gap can be closed, which has arisen between Smart Home and Smart Garden. The Smart Garage enables a comfortable connection of the garage to the Smart Home System. It works with a microcontroller, the Metro M4, and many sensors that collect the information. The information is displayed in the specially created web application.

Features

- Control the garage via the web application or smartphone
- Monitoring of activities and sensor values in the garage
- Installation of automated routines, f.e. ventilation by poor air quality

Trends:

- Great growth in the sectors smart home, connection and control and security.
- The Smart Garage picks up those trends
- Development of smart home trends:



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Infoma
exXcellent solutions

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