

## main question:

What are the most common vulnerabilities in IOT devices and what guidelines should be followed to prevent them?

## sub questions:

- What are common IOT devices?
- How can these devices be categorised?
- What are common vulnerabilities in IOT devices?
- How can these vulnerabilities be patched?
- What are design methods to prevent these vulnerabilities?

## approach:

### **What are common IOT devices?**

To find out the most common IOT devices a digital literature study should be performed. Another option would be a survey to find the most common ones. So for this subquestion the library and field are used.

### **How can these devices be categorised?**

the categorisation can be done by means of a literature study to find the categorisation by application or by field of use?

### **What are common vulnerabilities in IOT devices?**

The most common vulnerabilities can be found using a literature study and with pentests which are a part of a security test. This means using the library and lab.

### **How can these vulnerabilities be patched?**

To get a basic idea on how to patch these vulnerabilities a literature study should be started. To get a full grip on fixing these vulnerabilities prototypes should be made and these prototypes should be tested.

### **What are design methods to prevent these vulnerabilities?**

a literature studie should yield the basic design methods to prevent these vulnerabilities? The outcome from this study should be tested using prototyping and security testing. This subquestion will use methods from the library, showroom and workshop.