**Smart Door Lock:**

**1st design:**

An Arduino would be connected to an RGB LED, a RFID Reader , a keypad and an LCD Screen and a relay . The Whole system would be built inside a case. The System would be powered using a 12V adapter.

**Evaluation 1:**

This design is a not too hard to make and cheap. But building a case can be complicated and time consuming, and the system would totally depend on electricity and would not work when there’s a power-cut.

**2nd design:**

The second design is basically quite similar to the first one, with the difference that a Wi-Fi-shield would be attached to the Arduino so it can be connected to a computer or with the raspberry pi. Instead of using RFID we can use a fingerprint sensor that will be more secured. The whole system can be made battery operated.

**Evaluation 2:**

This design is much harder than the first, and it also makes the device less portable, so if one would want to use it outside one would have to change the code a little. Also, the rasp pi is adding cost.

**Choice:**

I’m going to choose option 2 because even though it would be a little harder and more expensive, it would be a great project to work on and it would be really interesting to see how the things work together.