Divert power to machine room door

Ubiquitous Lab - Escape Room - WS2122
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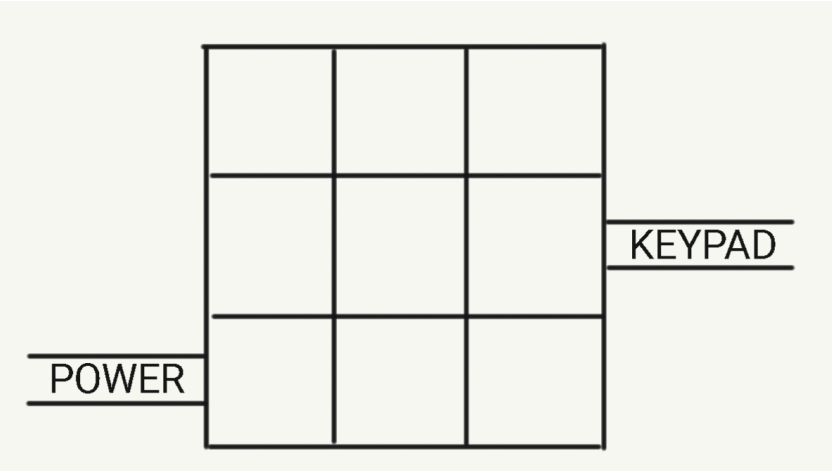
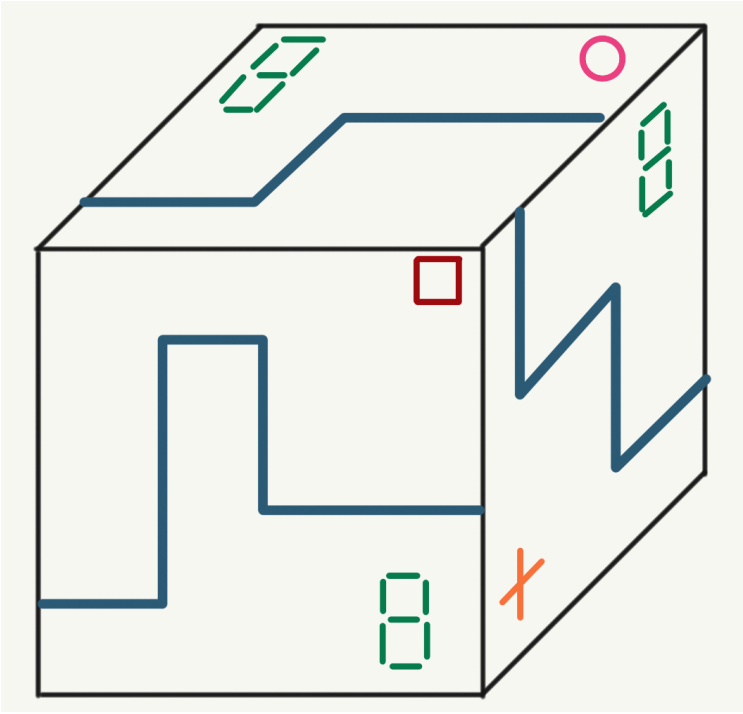
Objective

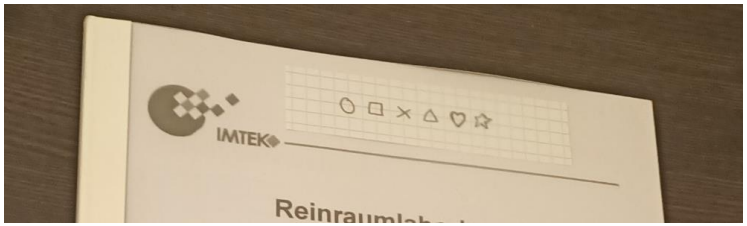
- Divert power from USV to keypad via panel-puzzle on the wall
- 1. Find the Panels
- 2. Separate the Panels
- 3. Plug in the Panels
- 4. Enter the key code
- Enter the next room



Finding the Panels

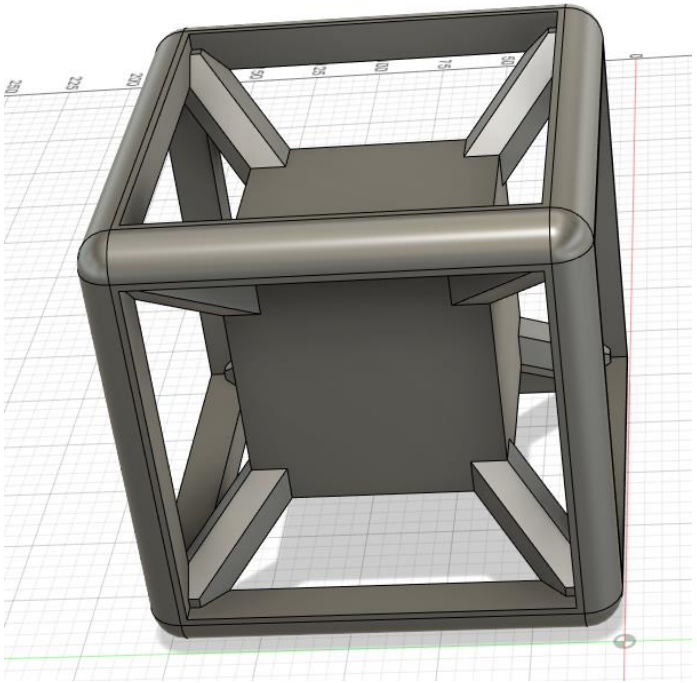
- Mounted as a Cube
  (Entrance door has not been needed a long time, so someone had some fun with them because they look nice.)
- Moving it makes it sparkle
- It has symbols on its sides
- The Symbols are on a document on the table in an order (e.g. comic, datasheet, ...)





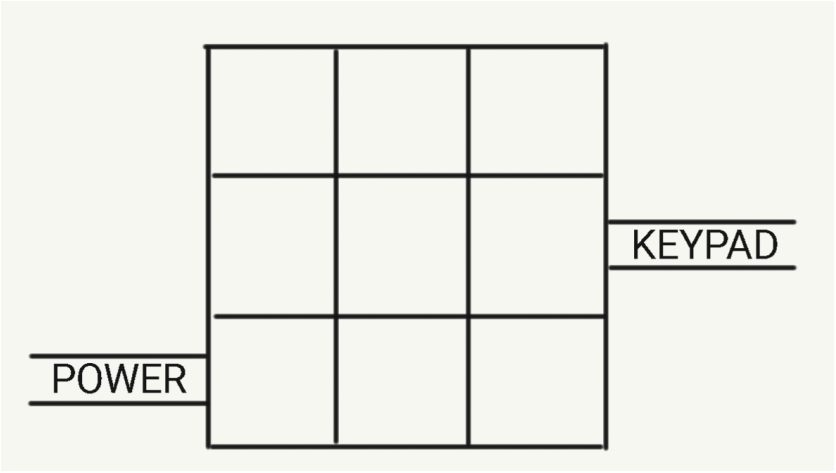
Separating the Panels

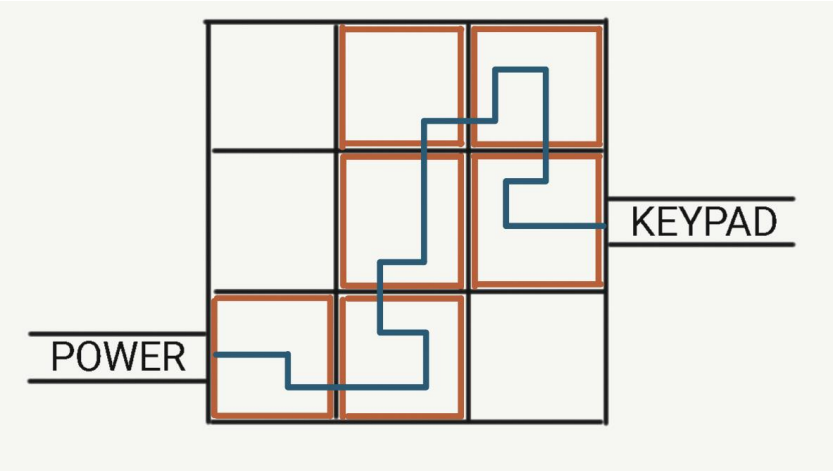
- Moving the Cube makes it sparkle
- Placing it the correct way makes it flash green
- After finishing a sequence (given by symbols) a latch will release the panels so they can be taken out



Plug in the Panels

- Panels contain a maze
- Placing the mace so it will make connection from power to keypad
- Keypad will be aktivated
- The code can be displayed using 7-segment displays on the panels OR it can be gathered somewhere else





Components / BOM

- Cube:
  - 1x ESP8266 or ESP32
  - 1x 3-Axis Gyroscope
  - 1x stepper or servo motor
  - 1x 3d-printed core with locking mechanism
  - 6x 7-segment displays
  - Multi-color LEDs, e.g. WS2812
  - 6x 3d-printed panels (or maybe custom made PCB)
  - 1x LiPo battery or stack of AA-Cells
- Wall
  - 1x ESP8266 or ESP32
  - 1x 3D-Printed receptables for panels
- General
  - Magnets (?) for mechanical & electrical connection
    Alternatively Pin-header and 3D-printed locking pins
  - Some wires and a lot of luck