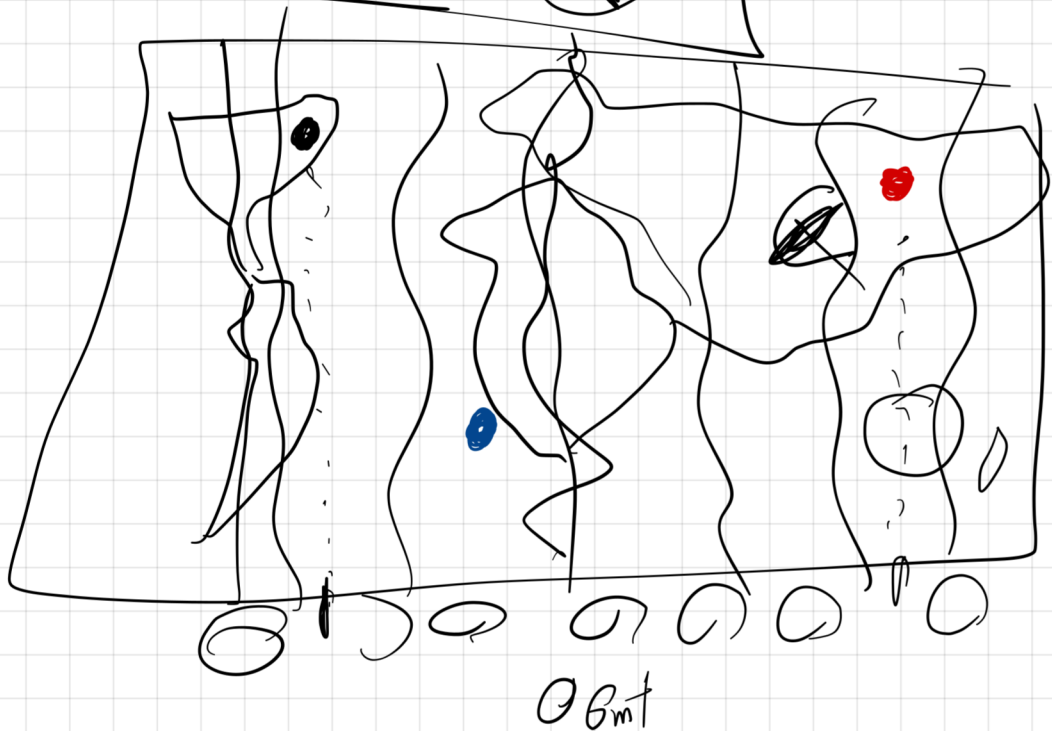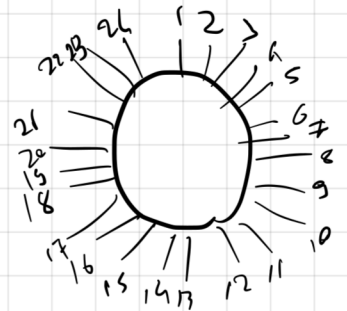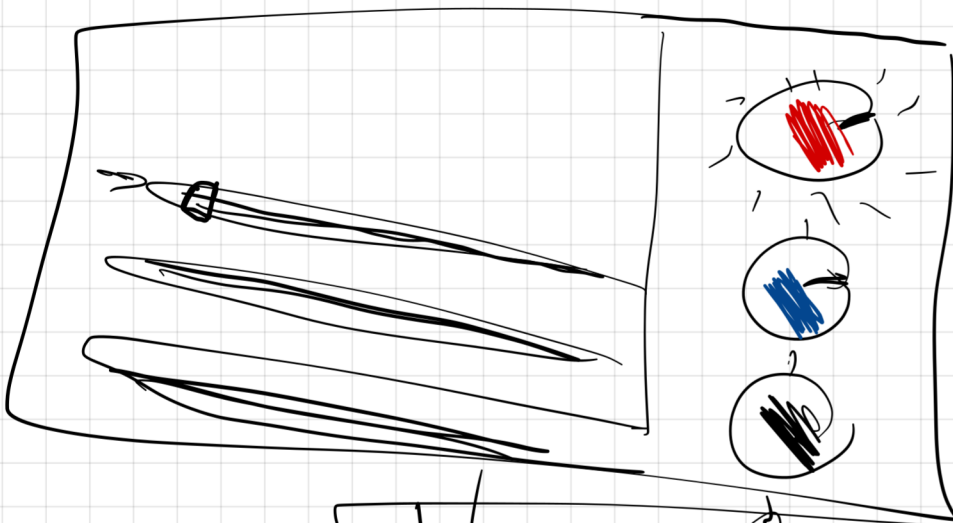# Puzzle 3 Details and BOM

Puzzle Start

- When/how is radio turned on?
  - ↳ interface ?!

- turn on via other group's puzzle
  - ↳ power on
  - ↳ amplify transmission power
  - ↳ turn on yourself

- emergency broadcast is running
  - ↳ information message from NASA etc. to the people

- last employee of the power supplies working in the control room was dismissed a few years ago due to digitalization & autonomization of the control room
  - → he — Ferdinand — was a hobby funk operator
  - → hints that he exists somewhere in the room ??

Radio Features

- turn on autonomously if desired
  - ↳ otherwise switch to turn on, etc

- no matter how encoders are positioned, plays one same emergency broadcast
  - ↳ information to people of the city (from NASA etc.)

- only at one specific position of the 3 encoders, the radio station changes
  - ↳ playing hobby funker Ferdinand's broadcast

- display (3-7 Zoll) must be touch (resistive), Windows Logo on it

- sound must be reasonable

- world map hanging on a wall, with 3 Pins somewhere on it
  ↳ time difference to GMT of the positions of the three Pins corresponds to the desired positions of the three radio encoders
      ↳ to reach hobby funker radio station
      ↳ all other encoder positions don't change the radio station
          ↳ same emergency broadcast everywhere else
      ↳ positions of the pins were former holiday destinations of the hobby funker operator, this is how he remembered his station
          ↳ how is this clear??
      ↳ absolute time difference?

○ solving this puzzle automaticly changes radio station

  ↳ we can now hear the voice of hobby funker Ferdinand

- hobby funker Ferdinand is talking randomly
  - ↳ he's a bit crazy
  - ↳ he's swearing and bitching around
    - → does not like the today's modern systems and the fact that he had been fired
    - → thinks and says that he is the only one being able to deal with the control system and that nobody else is actually able to reboot the system in a situation like this because nobody knows the correct ==software name / key to something. ??==
- in his talking, he rather randomly includes color names
  - ↳ blue-green-red-green or so

- these colors correspond to the sequence of touching the parts of the windows Logo on the display
  - ↳ people might not understand at first that display is even touch due to it being resistive

- once the correct sequence has been entered, the display suddenly changes
  - → it now shows a
    - · software name, or
    - · validation key for software, or
    - · code to open door / safe

→ our puzzles have been solved !

BOM

- resistive touchscreen
    - → for LittleVGL & ESP32 / Arduino
    - → 3,5 - 7 inch

- incremental encoders   4x   → 3x for 1st Puzzle
                                                    1x for volume
    - → 12 or 24 steps
    - → construct and 3D print the case ourselves

- speaker, e.g. 4Ω 3W

- amplifier

- On/off switch
    - → or whatever we decide on how radio is turned on

- MicroSD card holder

- Micro SD card

- case: to be constructed by ourselves
    - → 3D printed
    - → use wood too

Non-technical:

- world map

- pins

Questions to be answered:

- power electronics / power supply ?!

    ↳ recharchable battery ?