

Backup Battery for Control Room

Design update

25.11.2021

Summary of the Amendments

- Batteries go “wireless”
 - Boxes with NFC sticker
 - To be scanned by the NFC reader in the electric box / charging station
- To be discussed:
 - Reason and motivation for players to put the old battery back to the charging station?
 - Decorations, highlights and status indicators for each component

Hardware: 2 Batteries



Simple rectangular boxes.

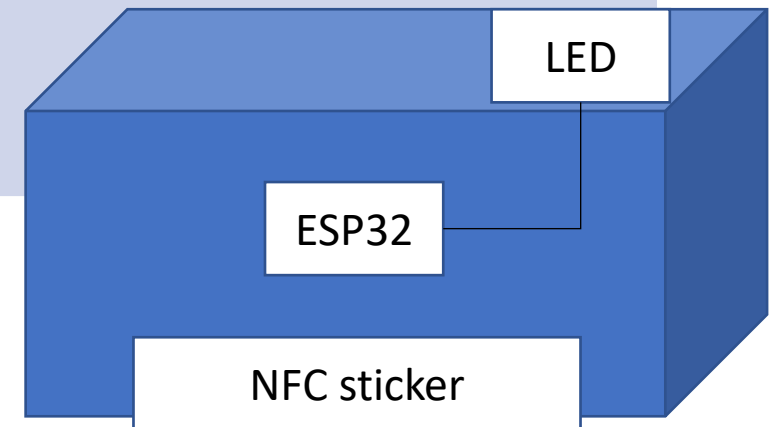
Use box color to distinguish between batteries



Identify itself to the electric box/ charging station via NFC

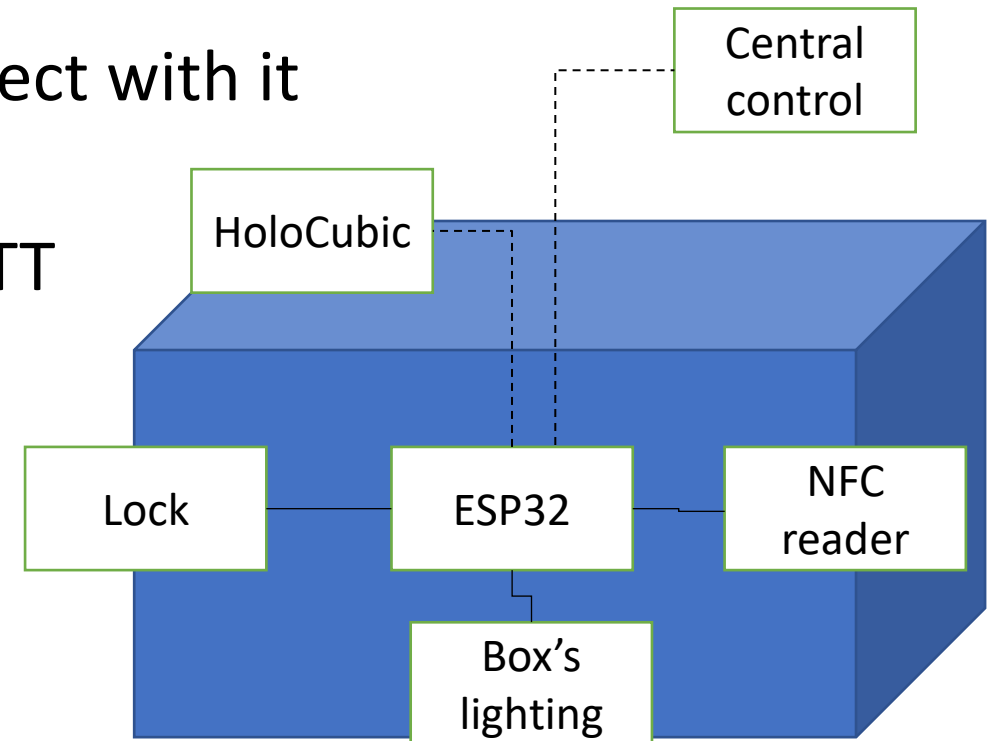


Optional: LED lighting around the case



Hardware: The Charging Station

- A locked box
- Connected to a HoloCubic
 - Unlock by finishing the 2048 game on HoloCubic
- Scan NFC sticker on the battery to connect with it
 - Like wireless charging station
- Report status to central control via MQTT



Hardware: Electric box



Simple box attached on a shelf



Identify which battery is connected
(via NFC)

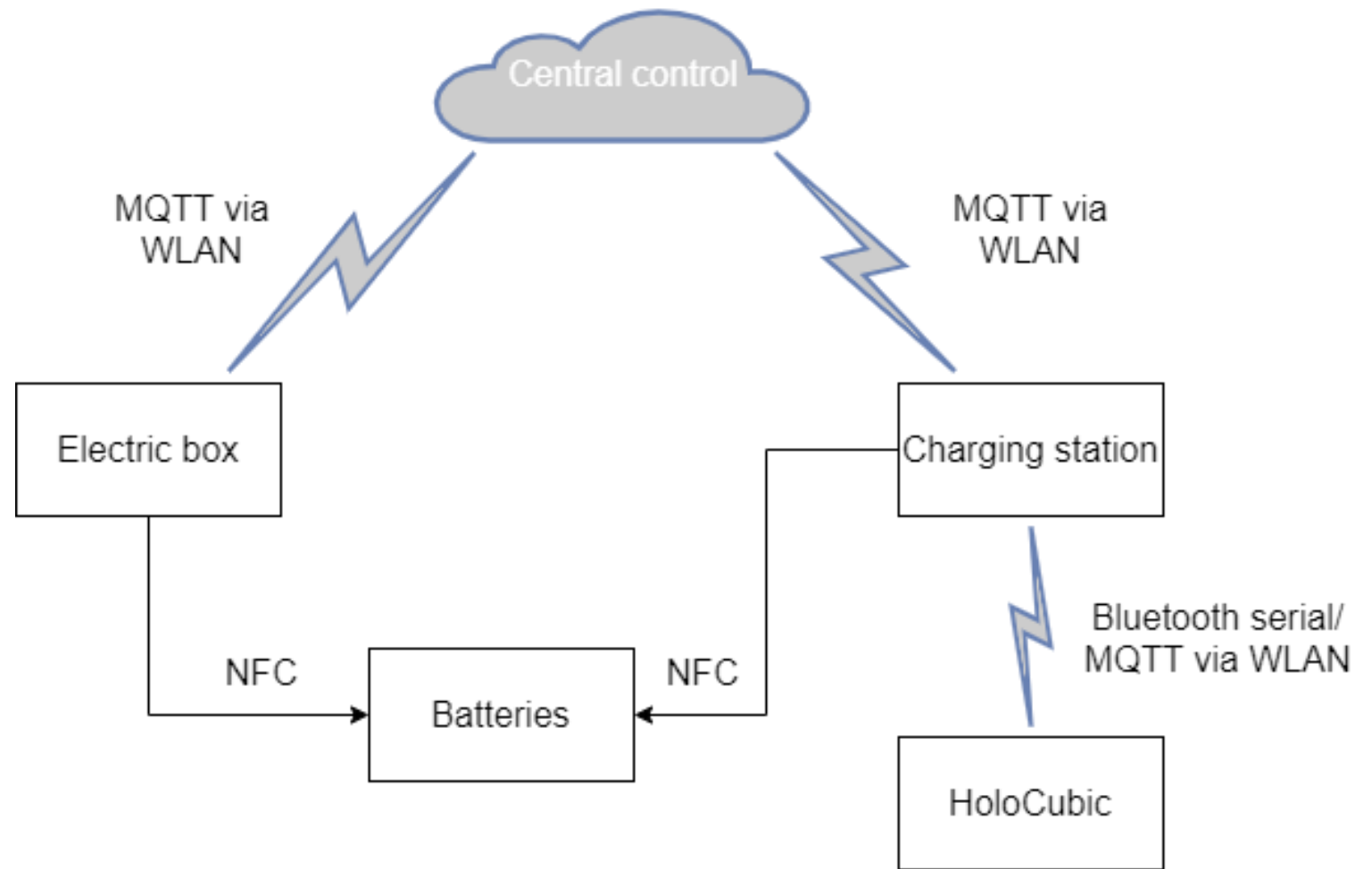


Set which battery to recognize
(via MQTT)



Report status to central control (via
MQTT) to continue (enable next puzzle)

Overall Network Connection



BOM

- Octopart:
<https://octopart.com/bom-tool/qDbnrXQd/HgpIiyWrlzGF0o4x>
- Excel (finalized):
<https://github.com/ubilab-ws21/puzzle-5/blob/d874df2cf796b300654bb4c0de58eba83220eb76/docs/BOM.xlsx>