



Coronavirus Makers PAPR Task Force

Powered Air Purifying
Respirators for healthcare
personnel

*Work safe
Work comfortably
Work better*

#EUvsVirus
challenge

can you hack it?

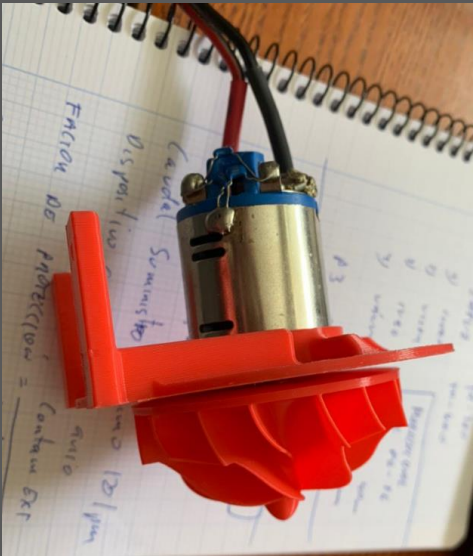
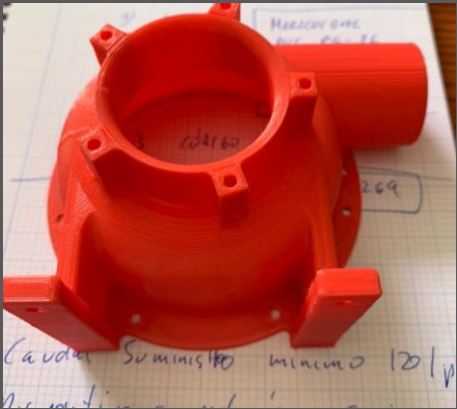


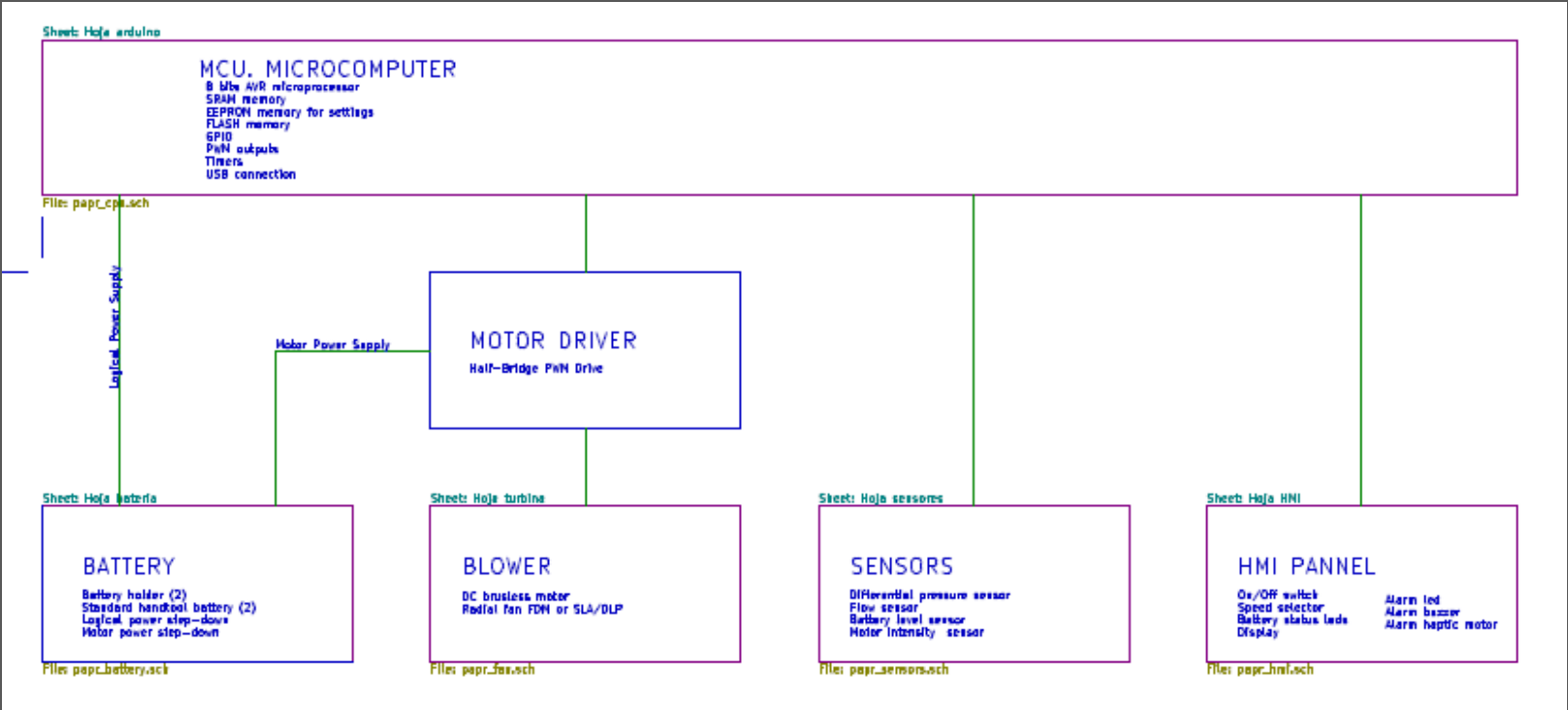
PROGRESS

Prototype

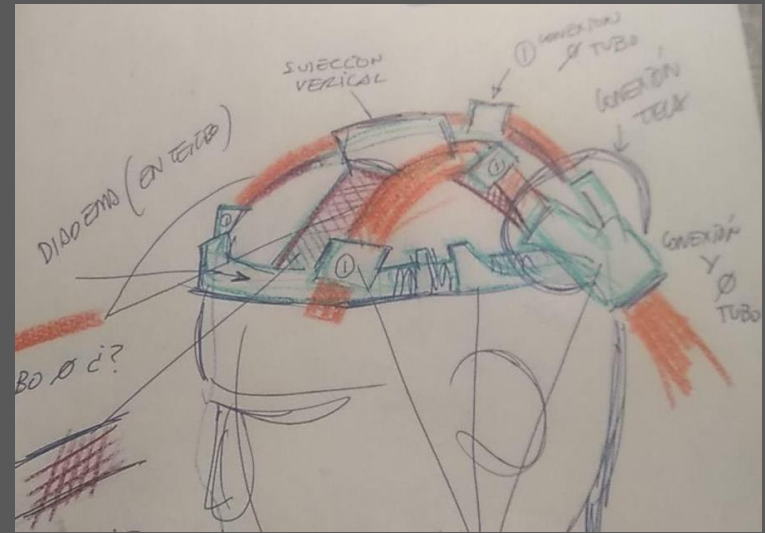
- BOM list
- Electronic prototype
- Software prototype
- Helmet support for fabrics
- Coverhead
- Electronic box
- Turbine prototype

Turbine prototype





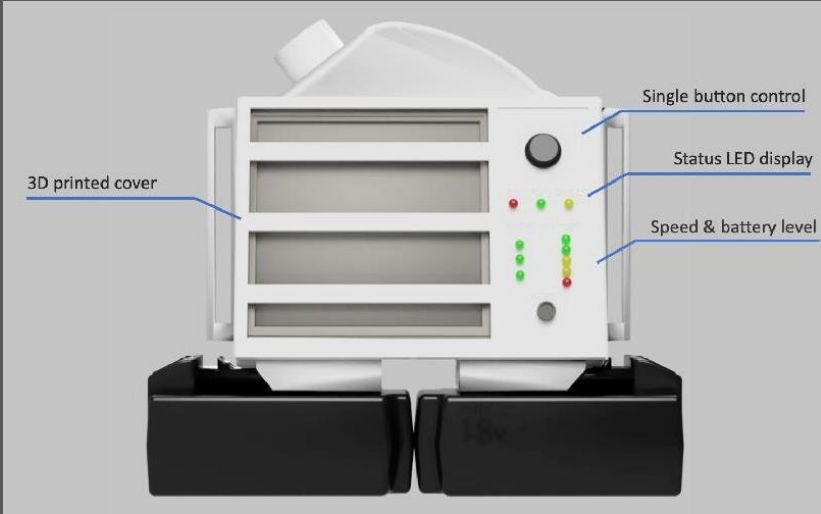
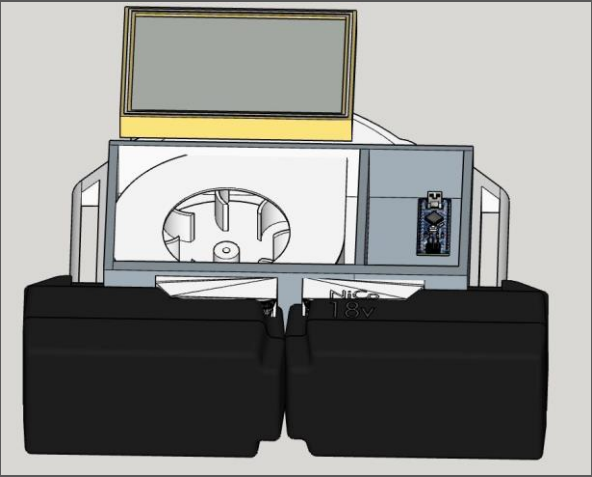
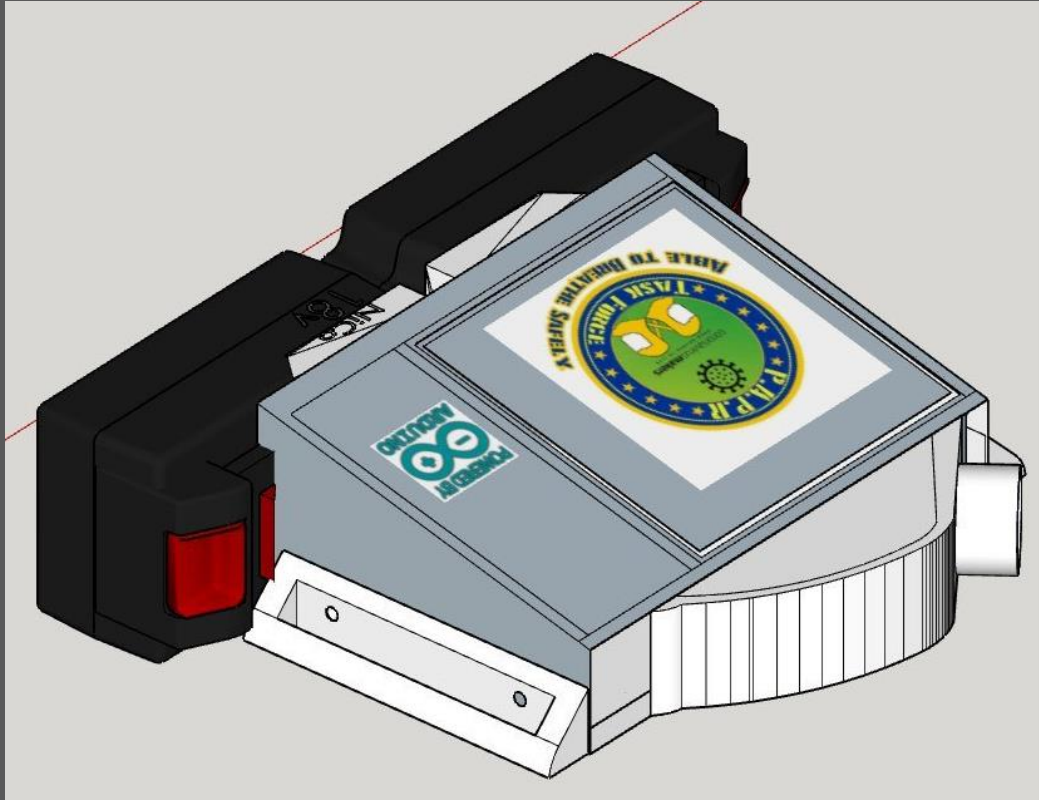
Helmet support



Coverhead



Electronic Box



PROBLEMS

- Fan blower design
 - Fluid simulation for best design
- Fabric pattern design
 - Need a fabric designer to help with pattern
- No legal mentoring regarding licenses
 - Open-source + commercial
- Requirements for CE / homologation

HOW TO VALIDATE

Regulation

UNE-EN 12941:1999 A1 and A2

Pilot test

Manufacture 10-20 units

Healthcare workers use it for a brief period (2-3h)

Run 3-5 iterations

Develop final prototype for clinical trial

Clinical trial

Manufacture 50 units (final version)

Healthcare workers used it for long period (8-12h)

Use maker spaces for testing DIY manuals