A Responsive Audio and Tactile Method for the Vision Impaired

Michael Broderick

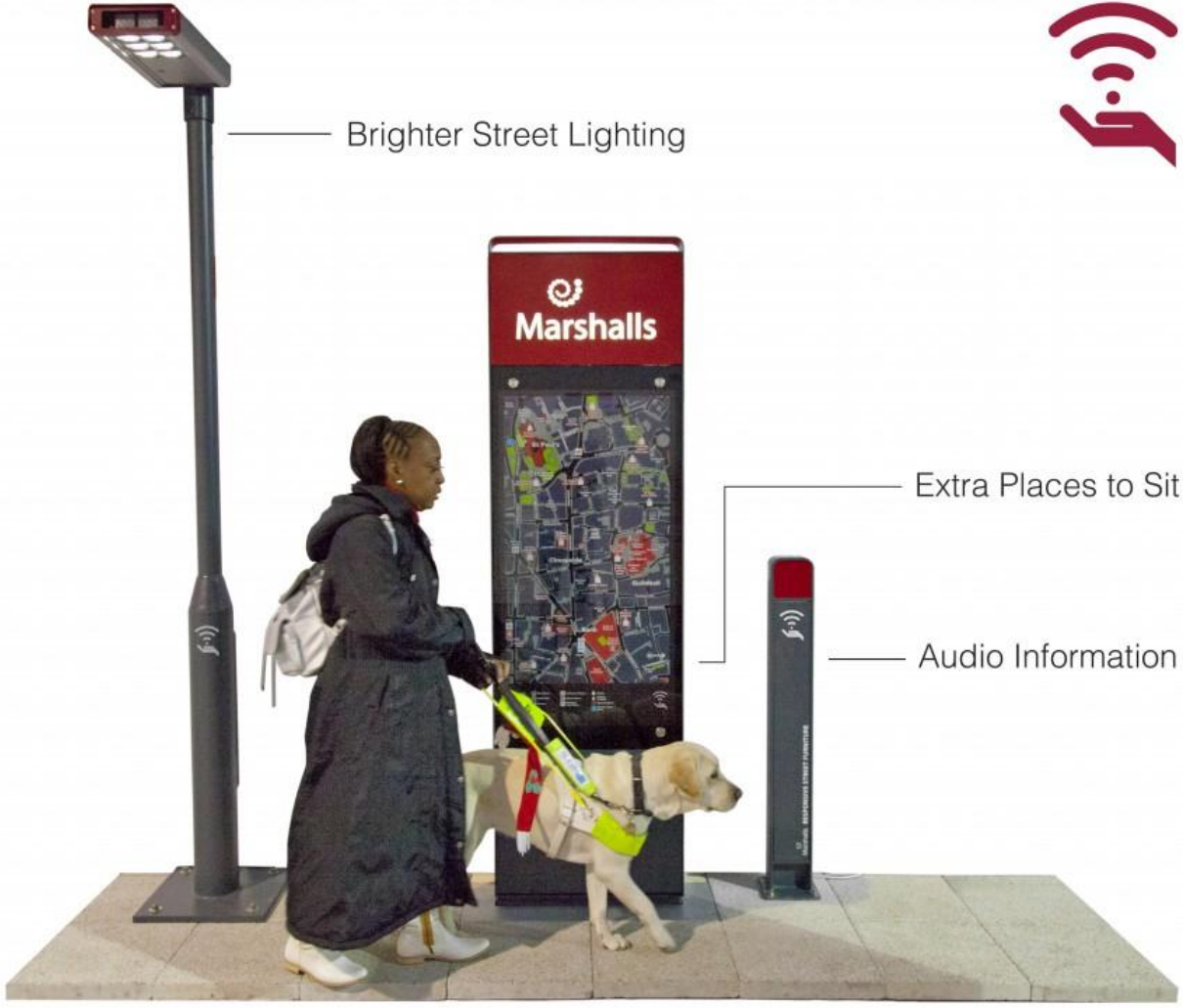
in collaboration with

aurecon

PAY
TO
PARK

Aims

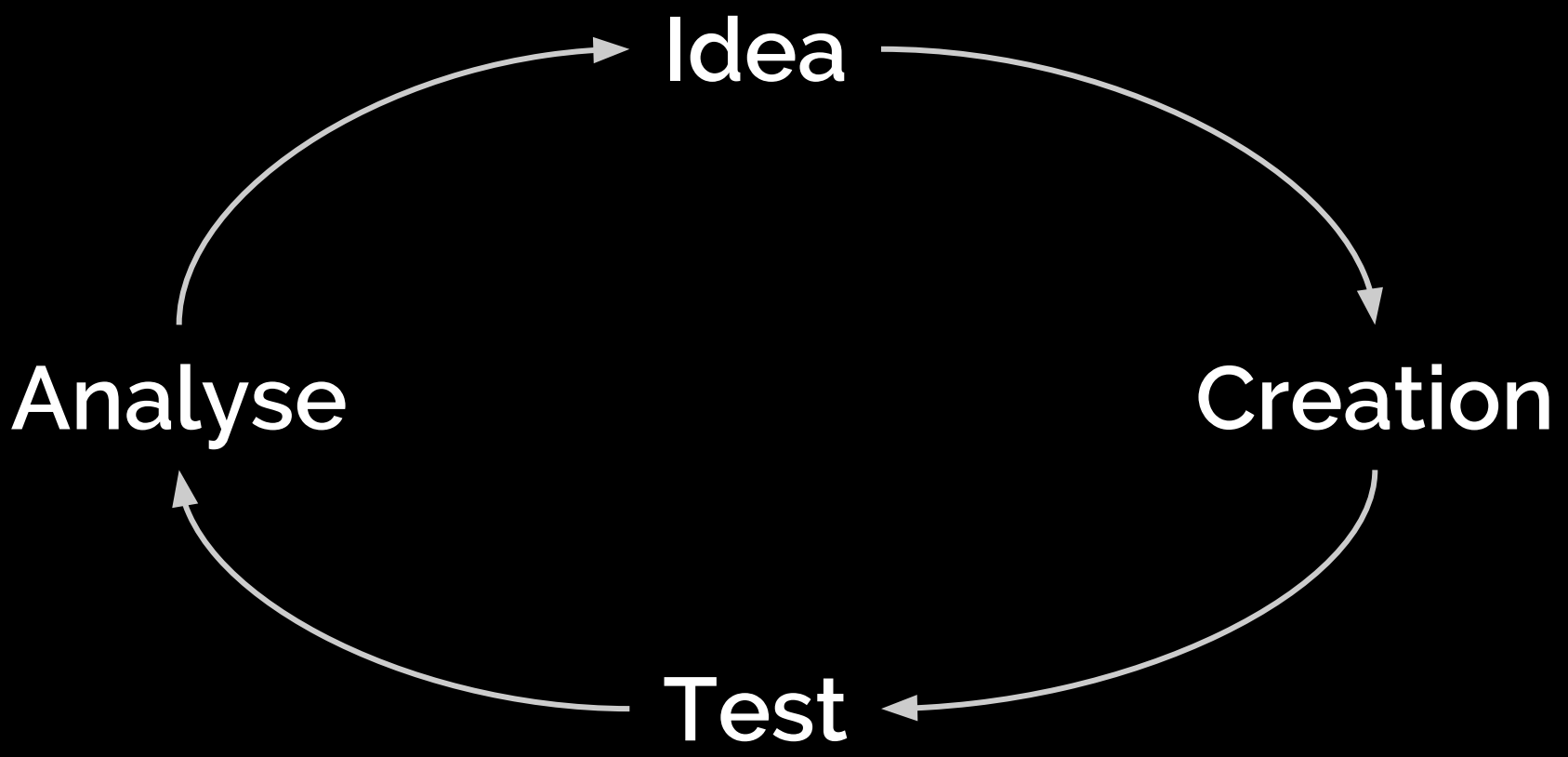
- Wayfinding for people who are blind
- Floorplan model placed in entry of public building
- User interacts with model via touch
- Audio and vibration feedback


Brighter Street Lighting
Marshalls
Extra Places to Sit
Audio Information

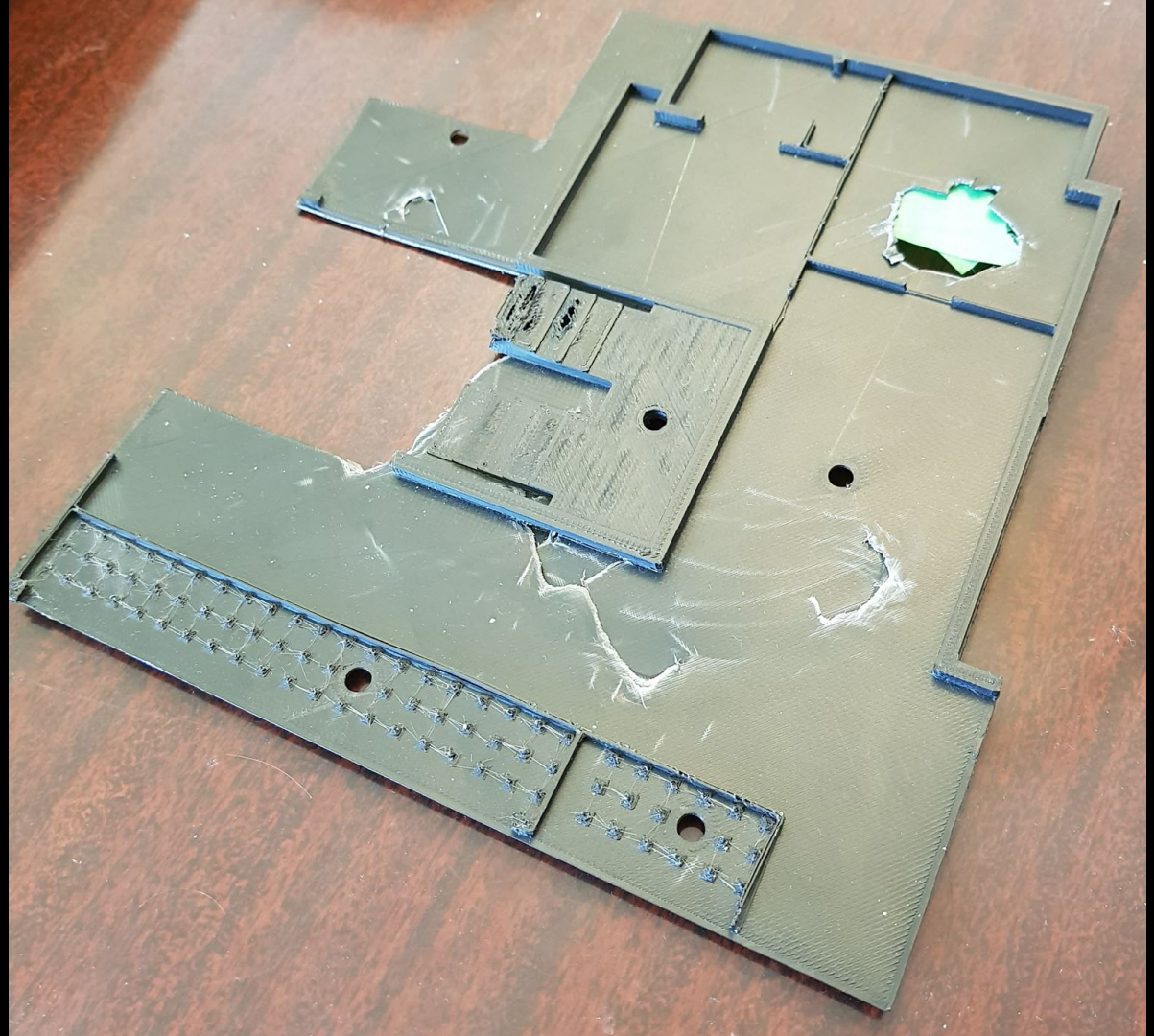
Wayfindr

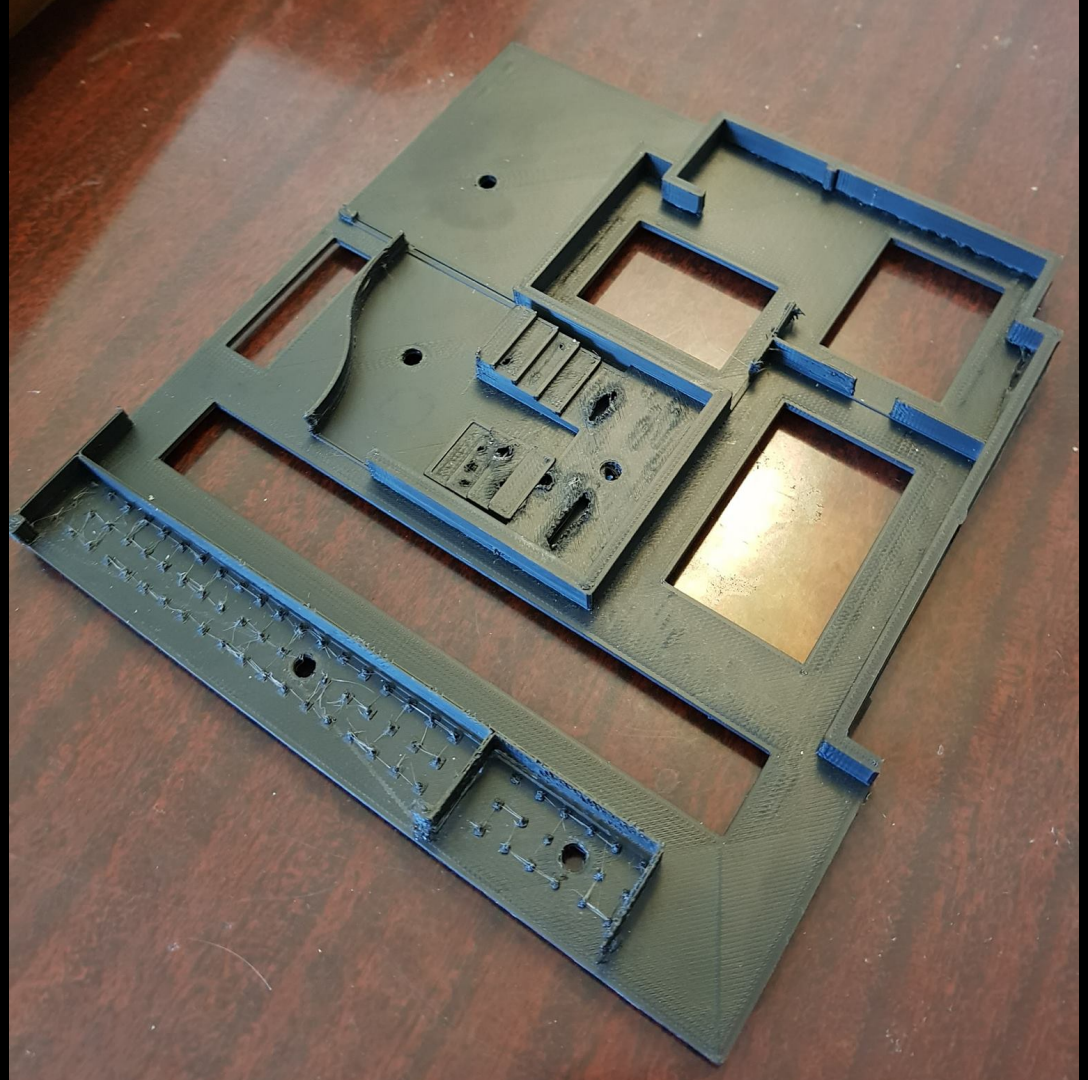
“Processes of action, perception and cognition turn out to occur in a haptic exploration of a design proposal similar to sighted practice”

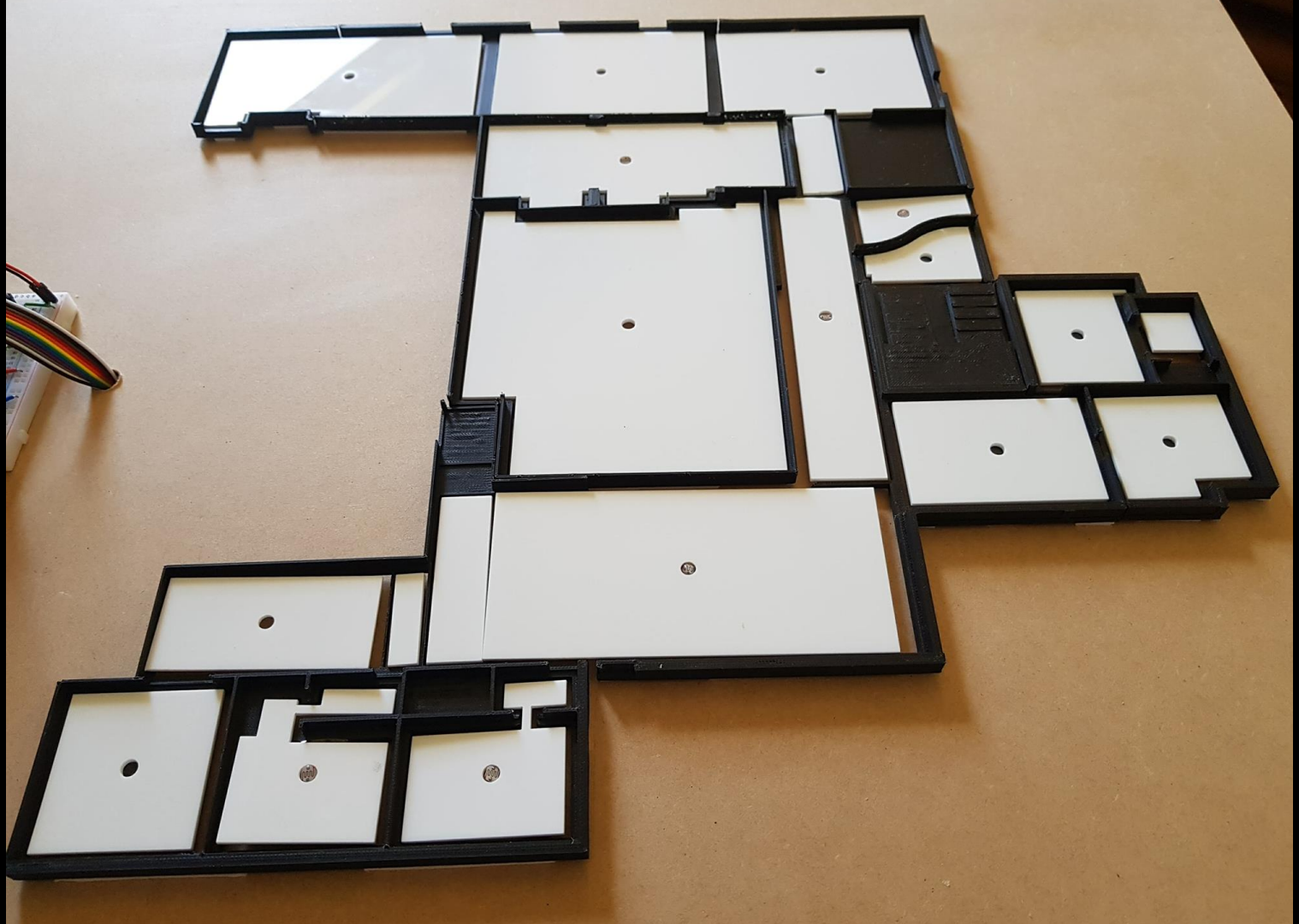
– Vermeersch et al. 2011


Idea
Creation
Test
Analyse

3D Model



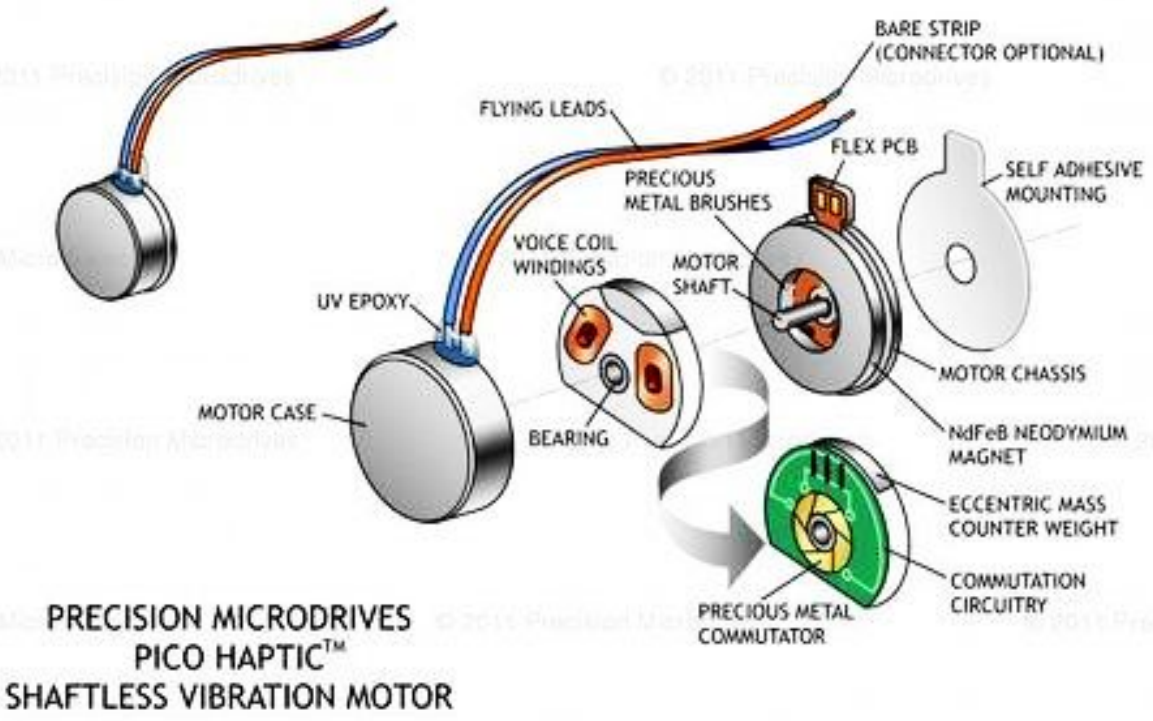


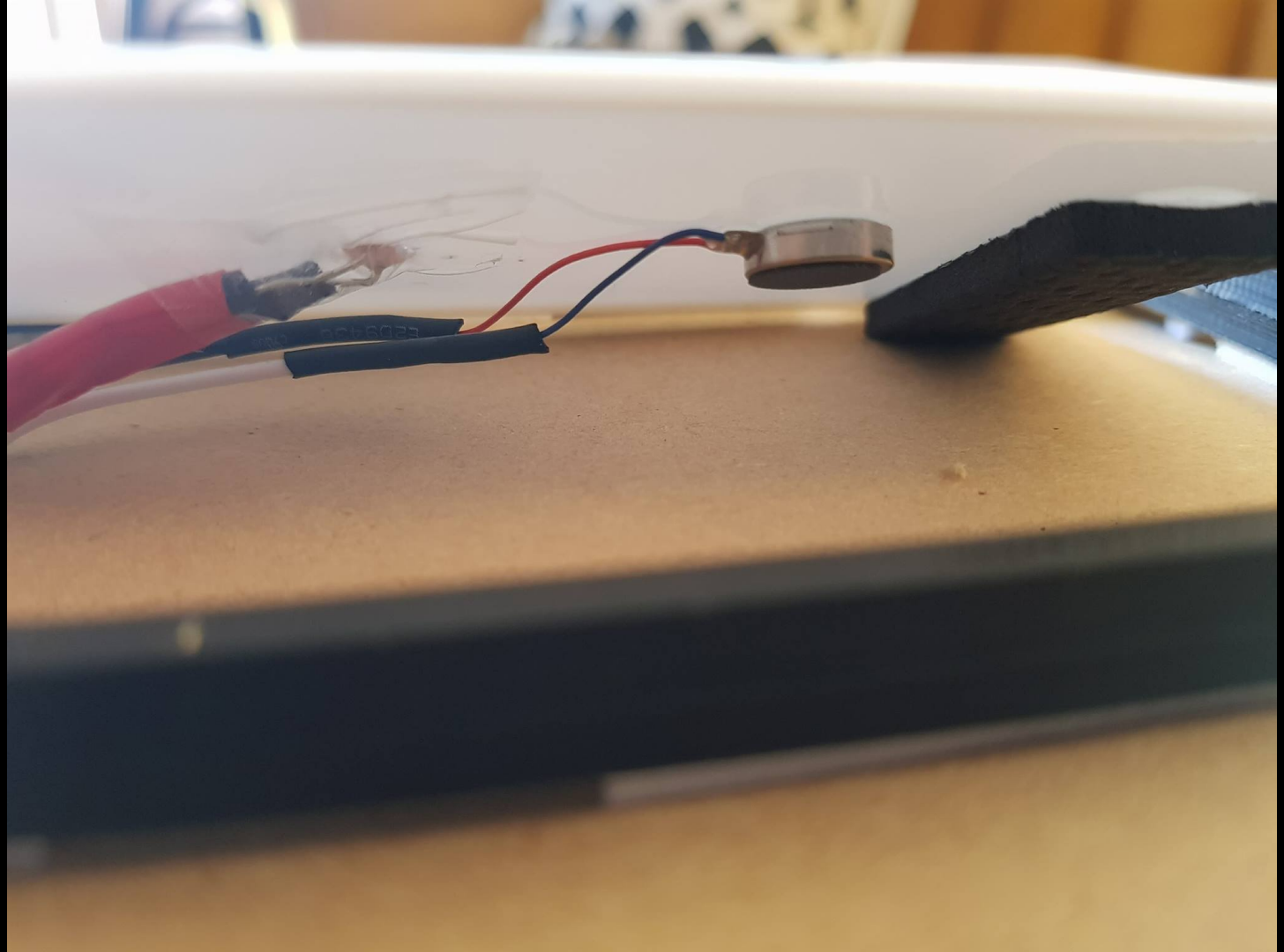


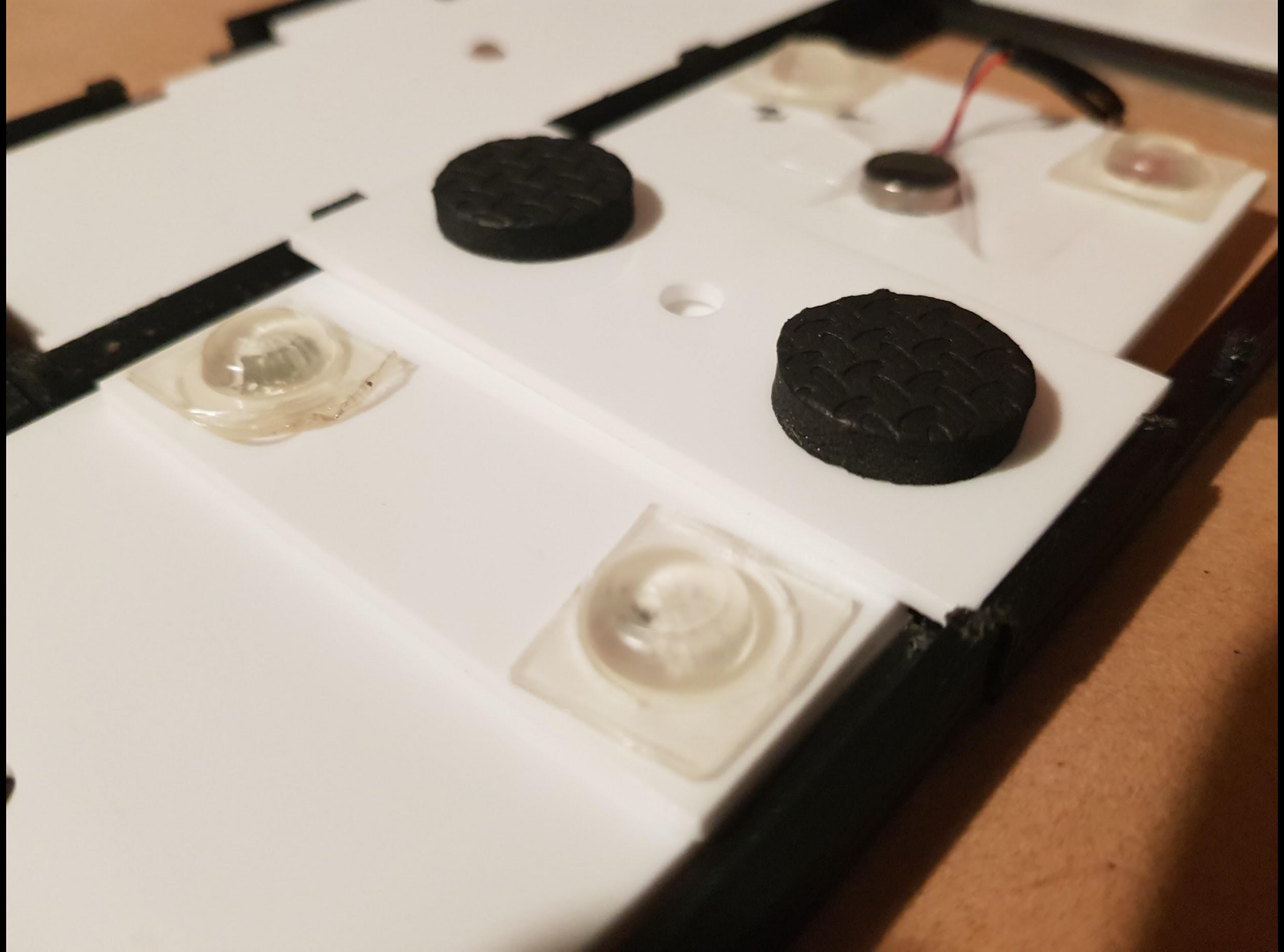
Electronics

Path Discovery

- Vibration
- Hot wire
- Air jets

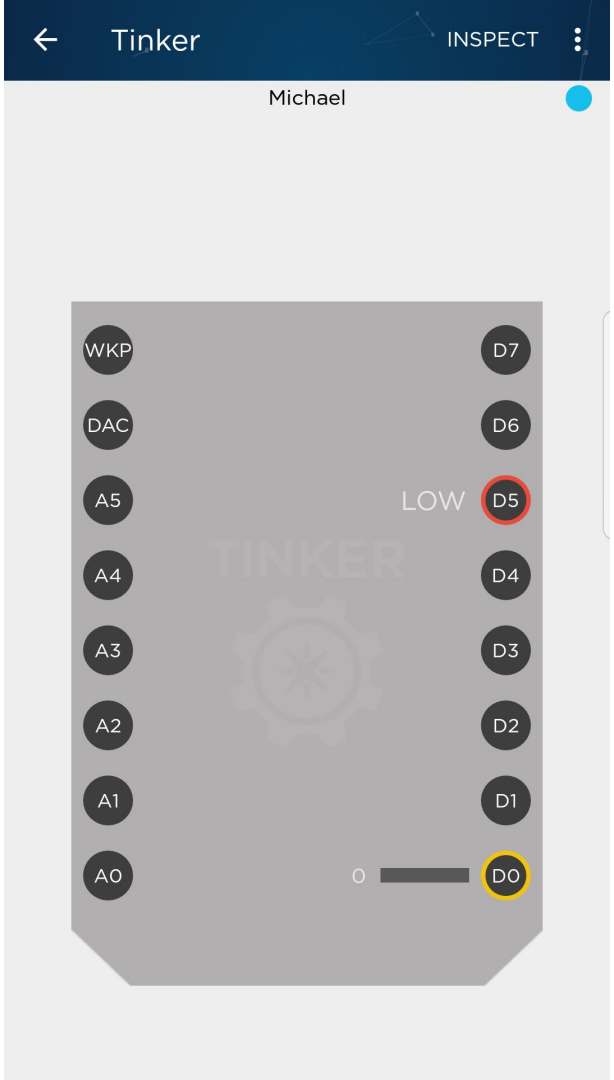


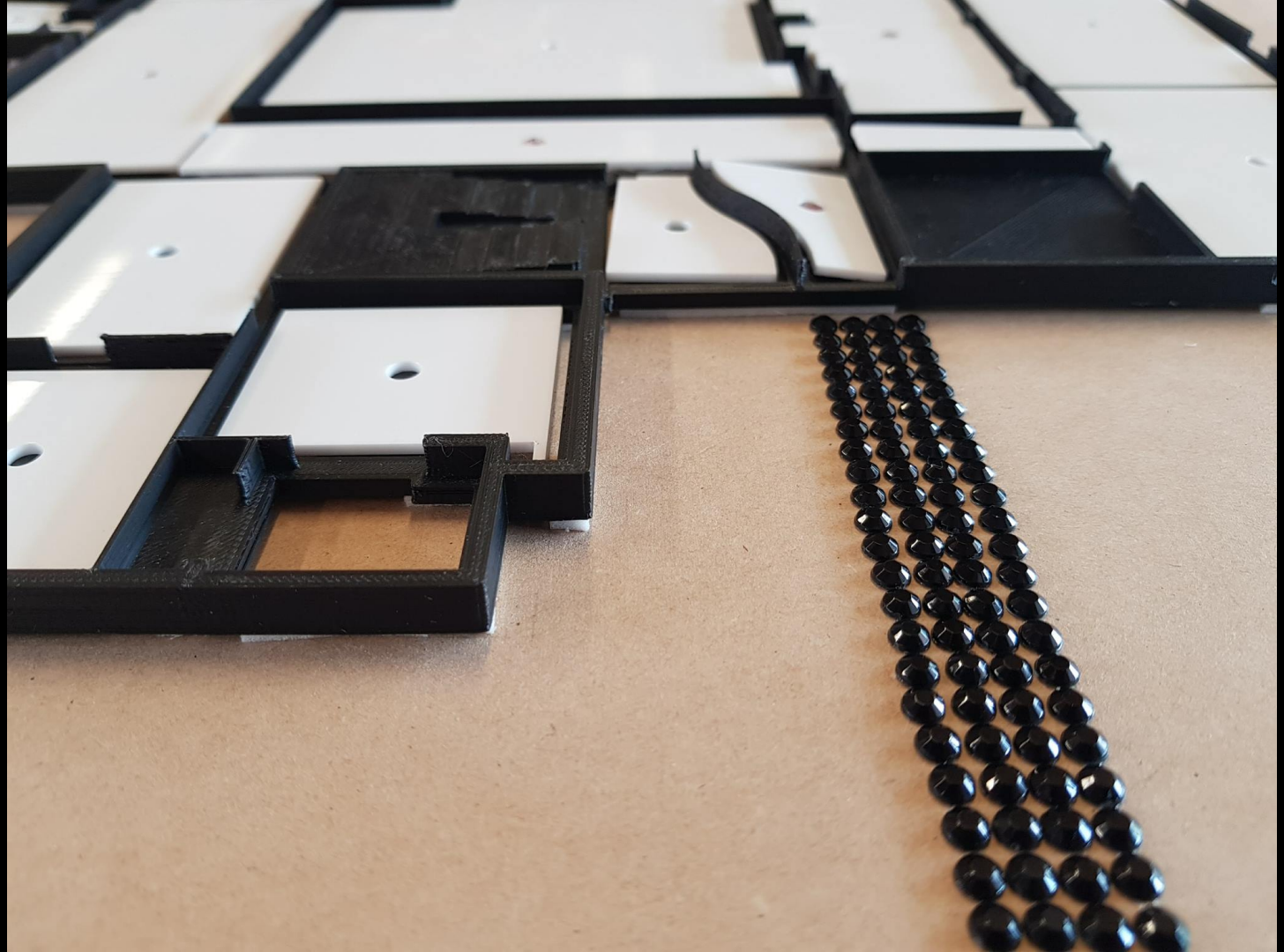




Vibration Input

1. Physical Button
2. Virtual Button (App)



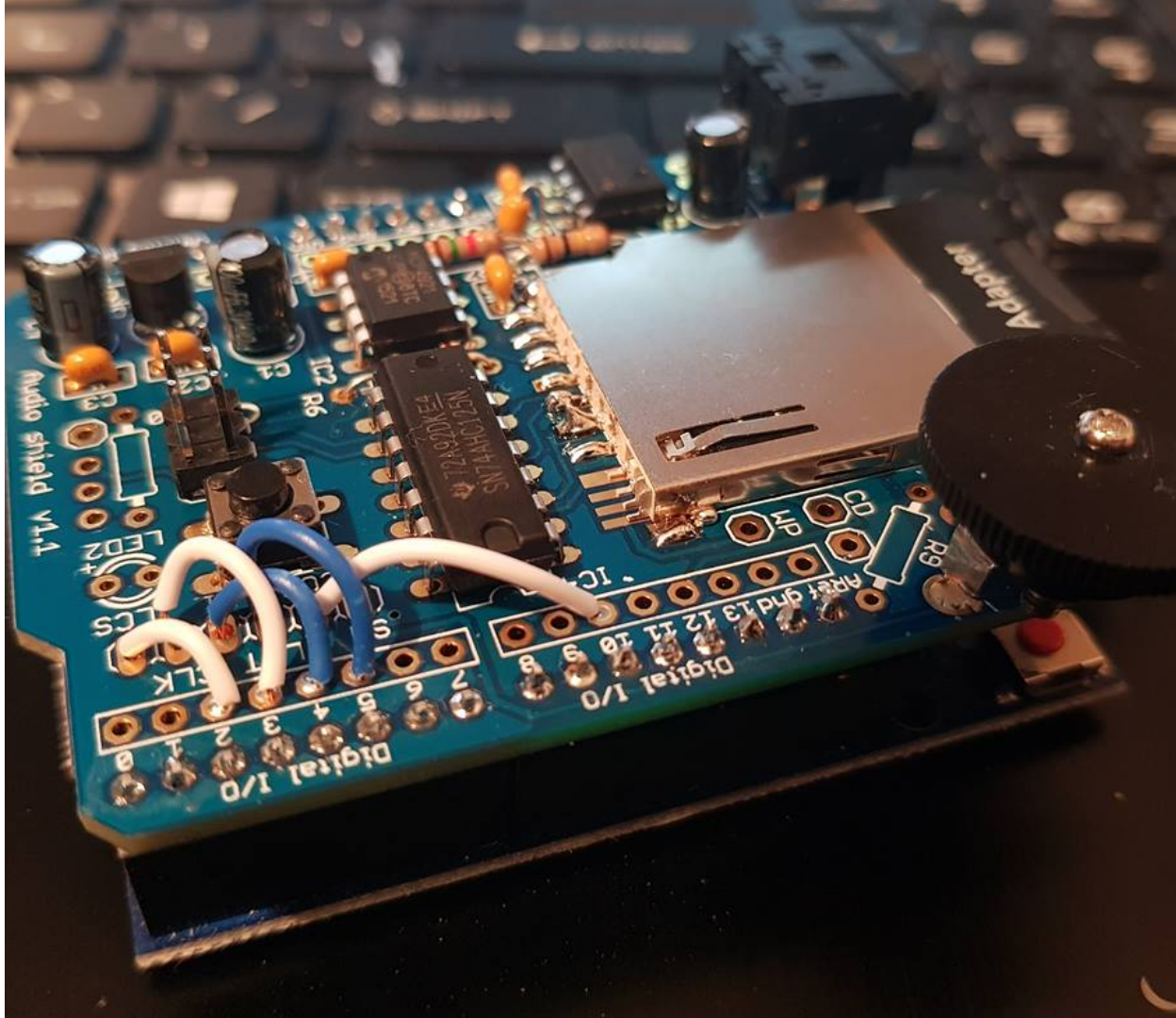


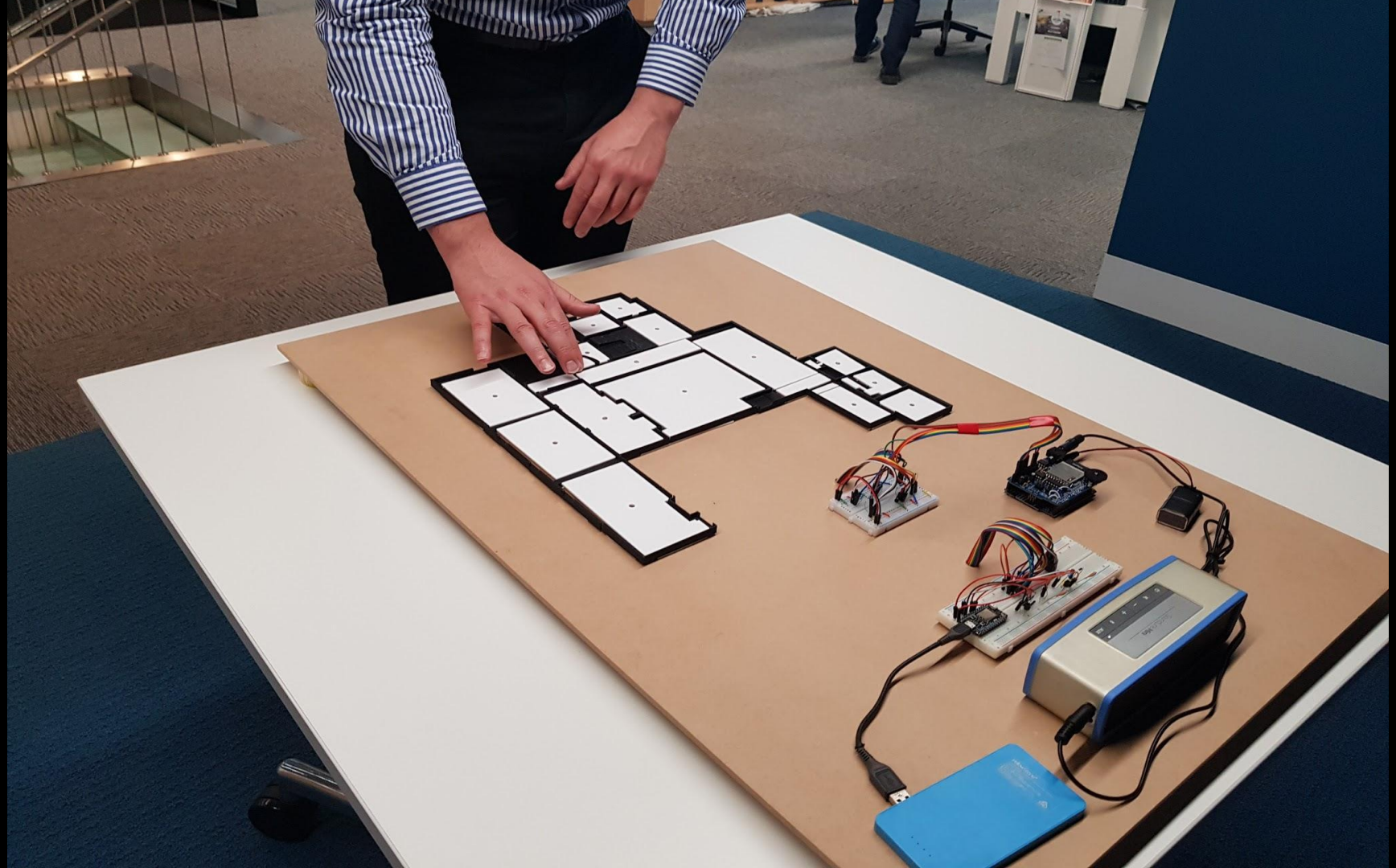
Audio - Input

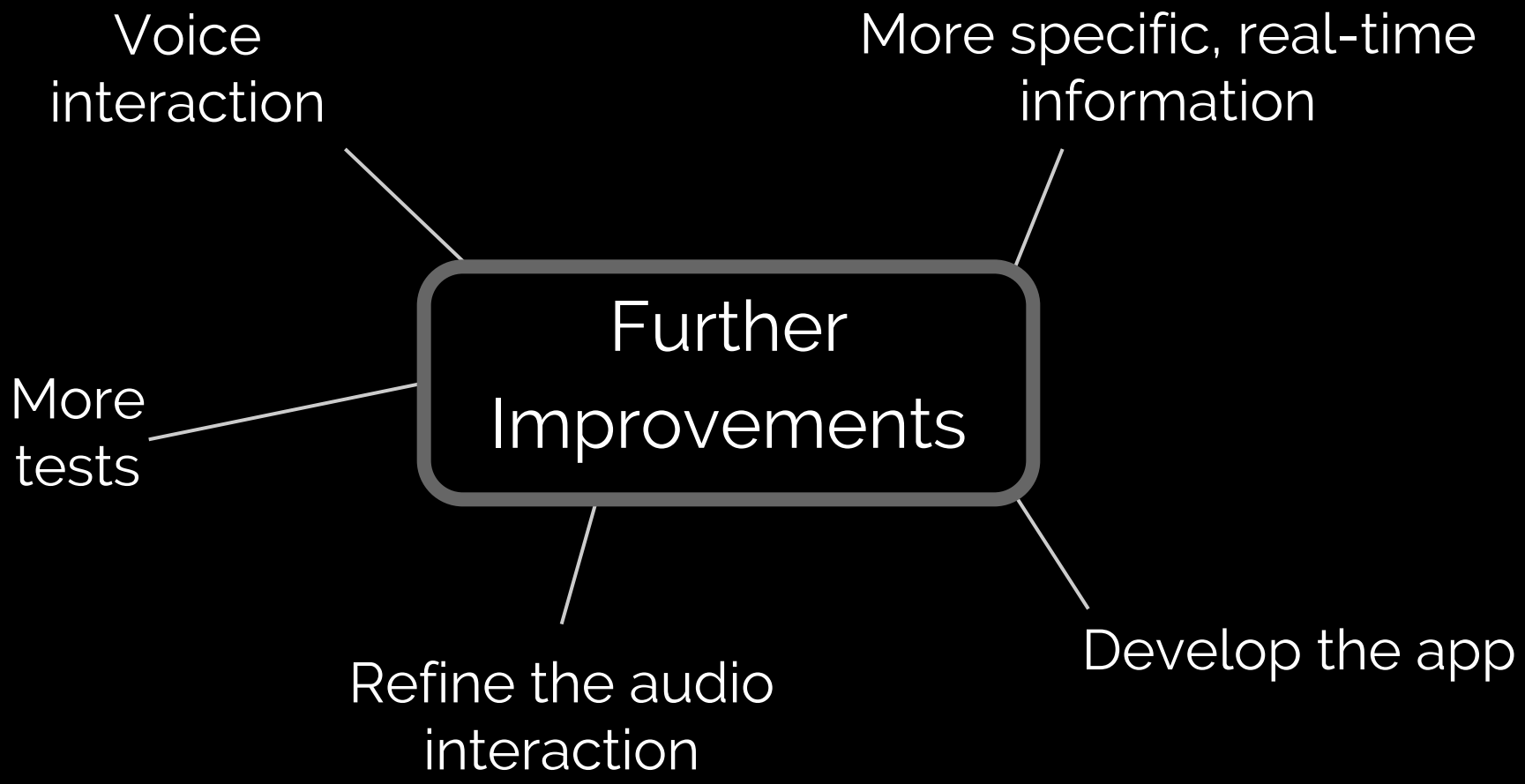
- Photoresistors
- Capacitive touch
- Proximity Sensors

Audio - Output

- Buzzer
- Audio shield






Voice interaction
More specific, real-time information
Further Improvements
More tests
Refine the audio interaction
Develop the app

PAY
TO
PARK