Wearable Sensor

MPU6050

NodeMCU
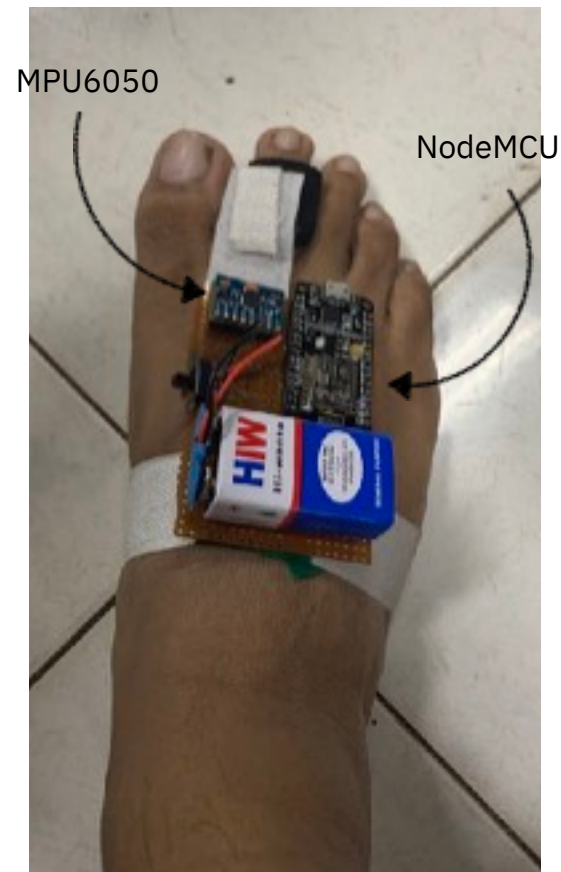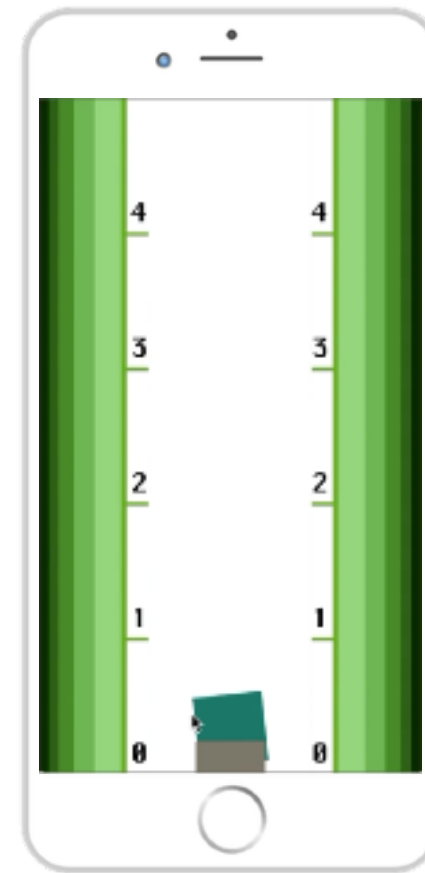
A mobile app for realtime feedback

The prototype was built using the Arduino IDE interfaced with Unity Game Engine for real-time feedback. The data collected was stored in Google Sheets to generate graphs that have recorded the movement for post exercise analysis. This was tested over a week with patients from Nair Hospital, Mumbai.

Prototype

Realtime feedback

The real time feedback was given as shown in the screen in the middle. The patient was required to follow the grey square, whereas the green square was mimicking the motion of their foot. If rotational movement was detected, the green square turned red.

The exercise being demoed here is Dynamic Quadriceps, to strengthen the hamstrings. This data was then recorded and shown to the patients through a webpage.

Prototype