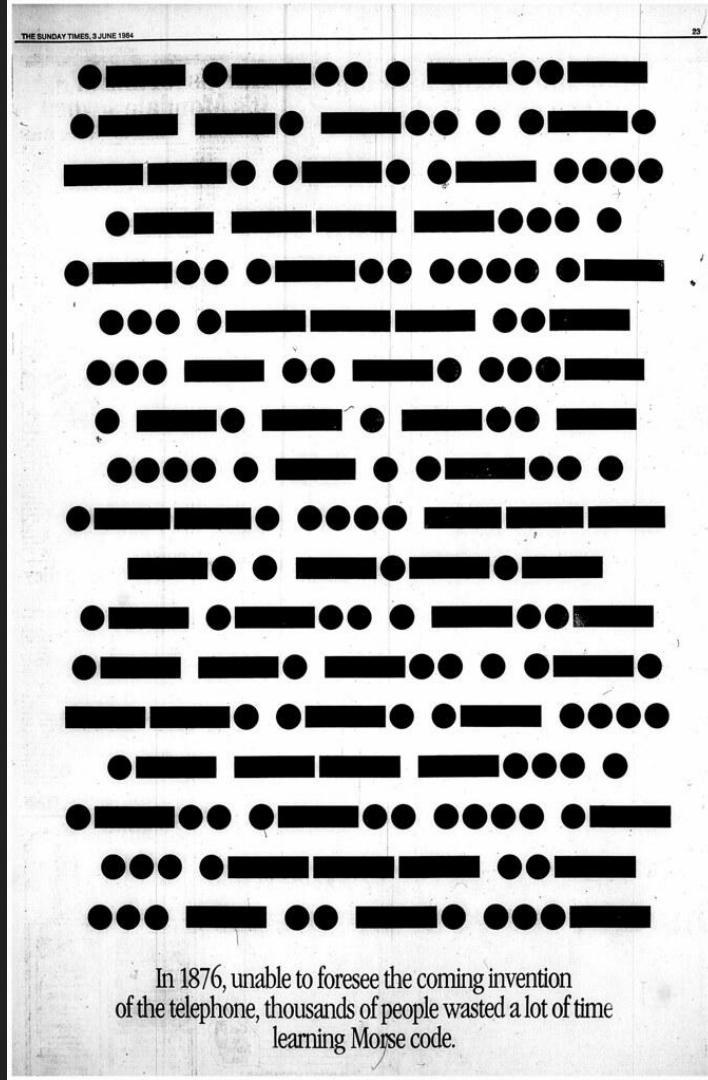


Access Code Alert !!!

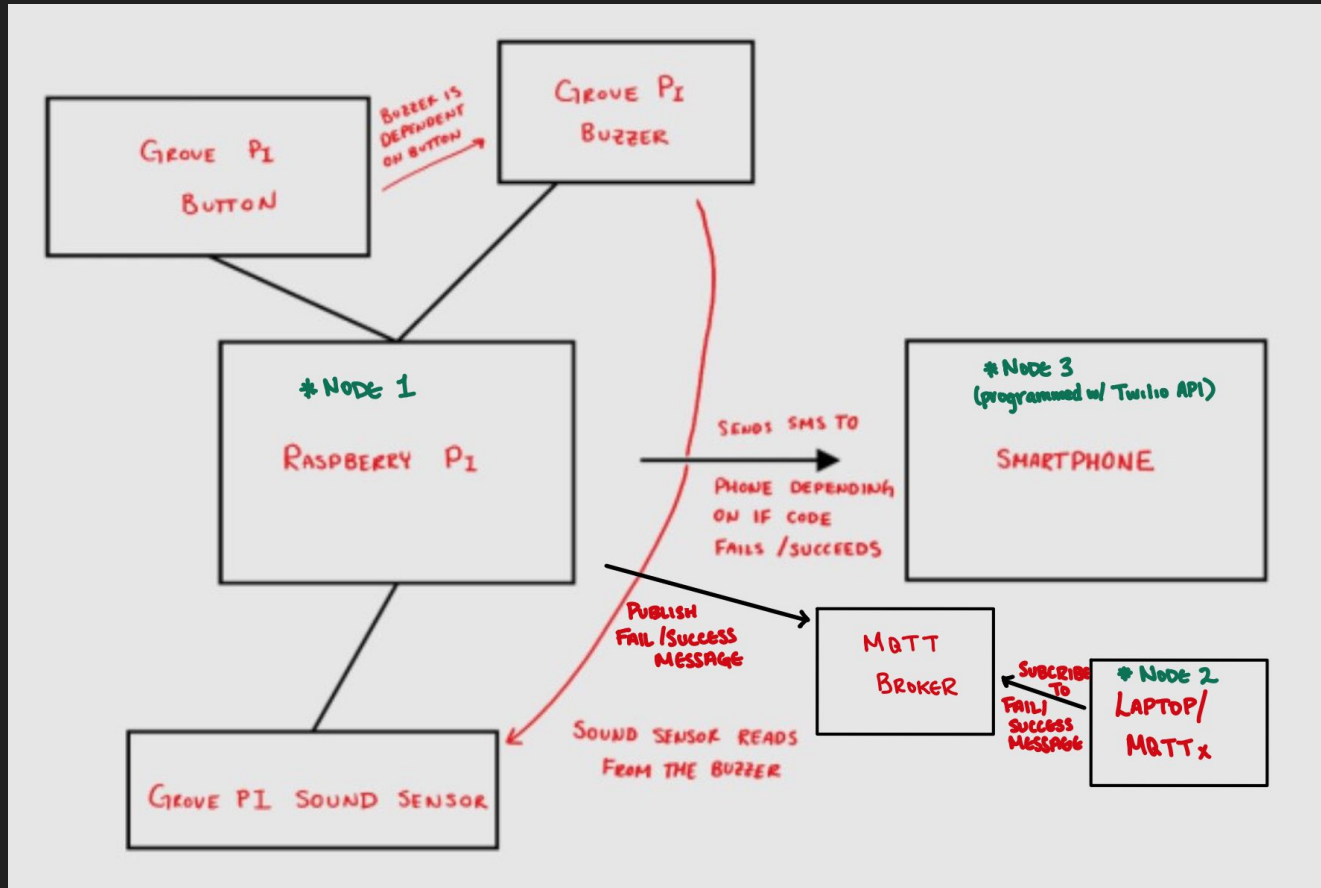
By Diya Thapliyal & Pooja Kowshik

What is it?

- ❑ Access code in morse code
- ❑ Utilization of SMS
 - ❑ If succeeds, user receives a confirmation message
 - ❑ If fails, user receives a failure message
- ❑ Utilization of grove pi button, buzzer, and sound sensor



Structure

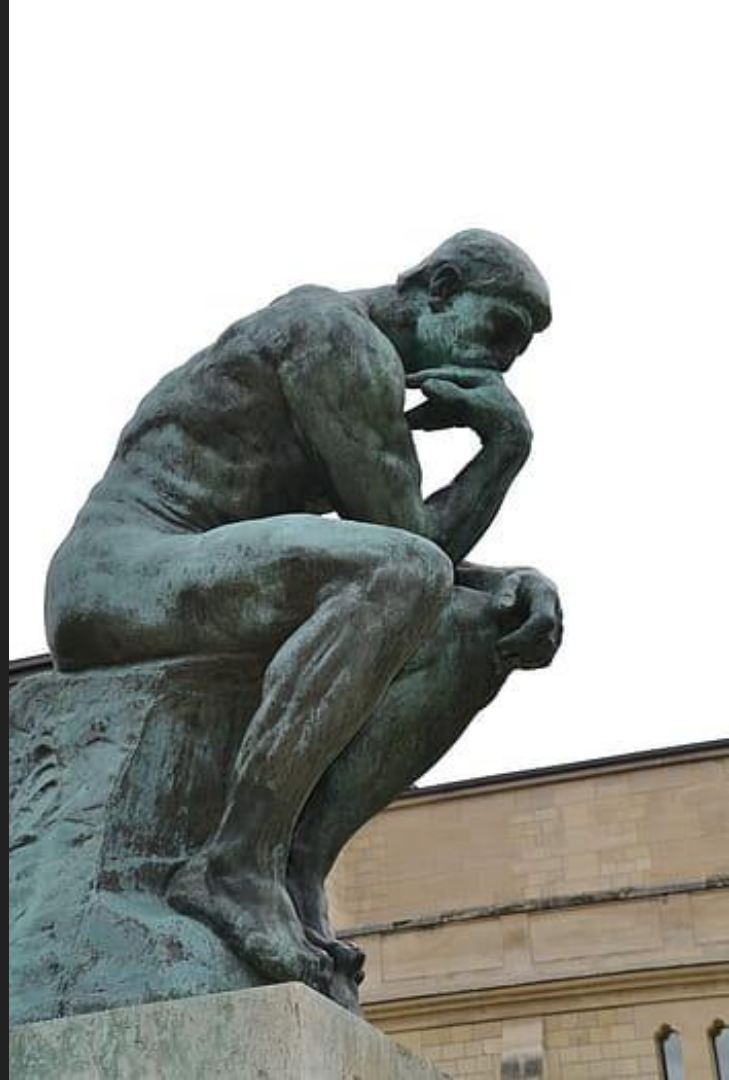


Components, Platforms & Protocols

- ❑ Nodes: RPI, Laptop (Freeboard) & Smartphone
- ❑ Grove Pi sensors: button, buzzer, sound sensor
- ❑ Processing: moving average filter with a window size of 15 data points
 - ❑ Create smoothening effect for easier postprocessing
 - ❑ Averaged data compared to threshold value for short vs long input
- ❑ Visualization: SMS message & MQTTx Visualizer
 - ❑ Twilio API used for SMS
 - ❑ MQTTx dashboard showing code success/failure message

Reflection

- ❑ Limitations:
 - ❑ Sound sensor sensitivity
 - ❑ Unexpected dips in baseline values
 - ❑ Lead to use of moving average filter
 - ❑ User interface & user reliability
 - ❑ How does a user know what a short or long know is?
 - ❑ How do we ensure they hold the button for the correct time segment
 - ❑ Fix? Perhaps use more streamlined user interface





!!! DEMO TIME !!!

~Fin~