

Assistive system for Visually Impaired People



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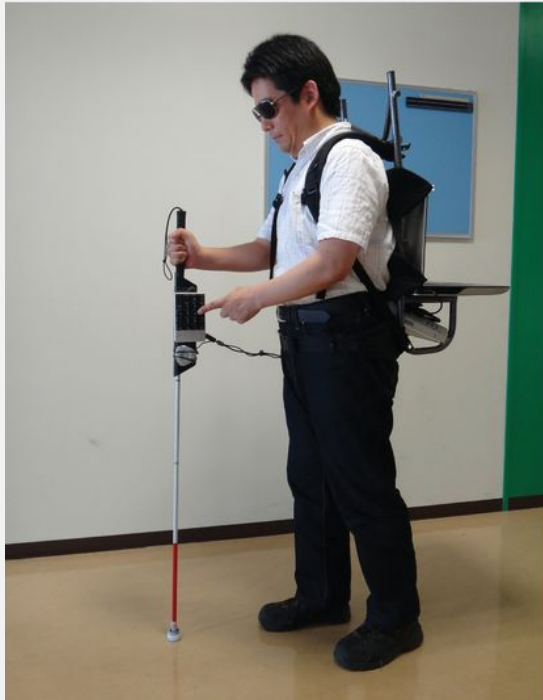


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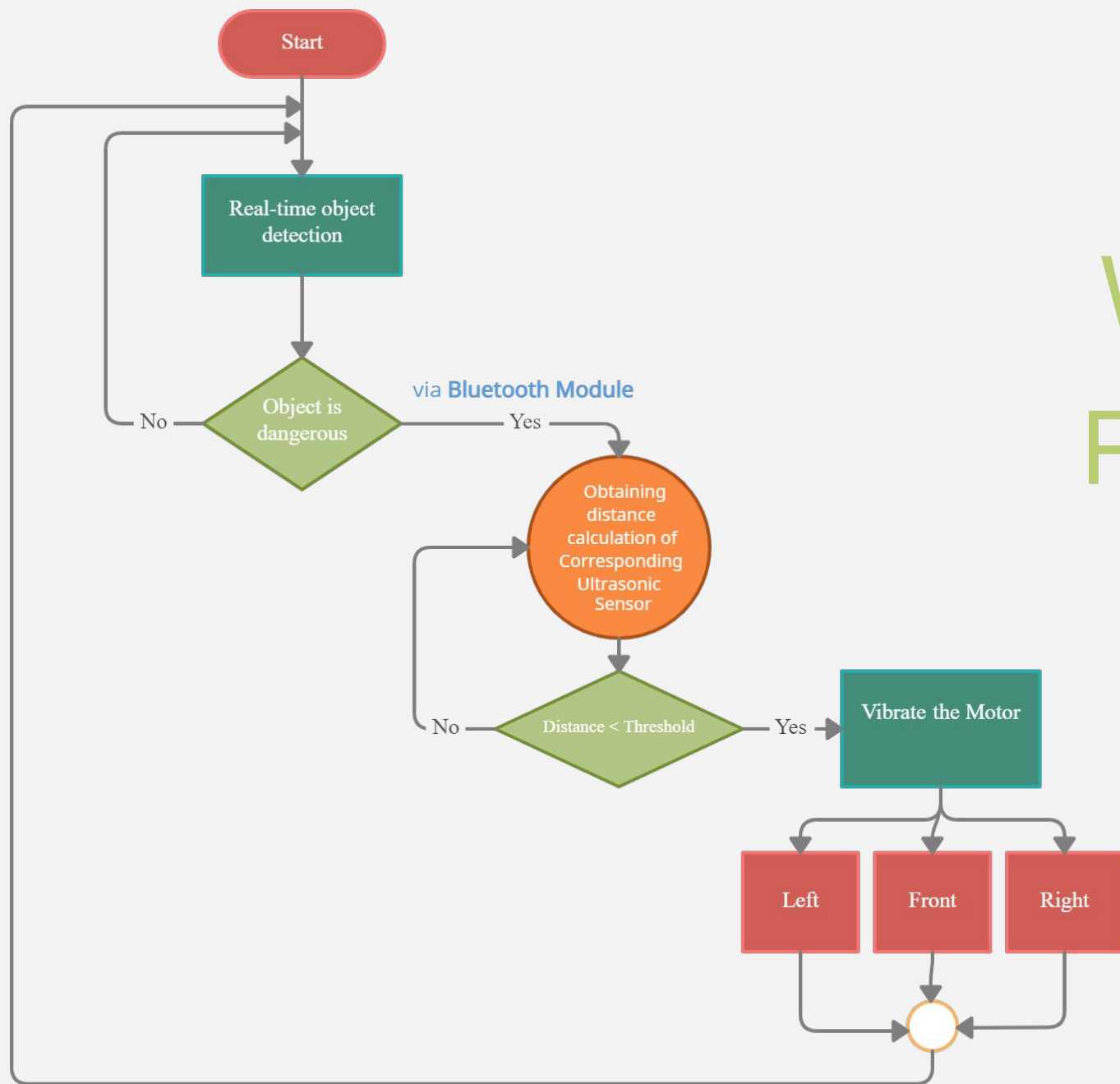
Importance of Project



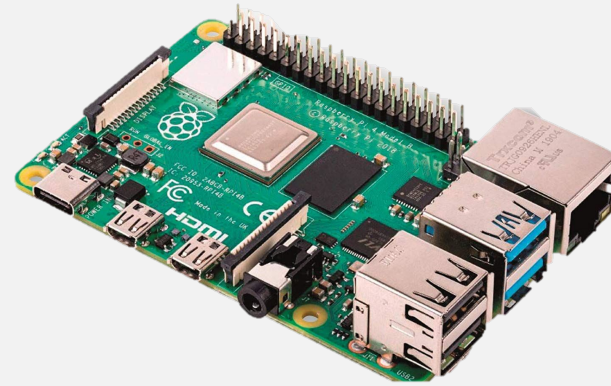
Existing devices and systems

- Tactile displays
- Smart stick
- Smart shoe

Working Principle



Box Module



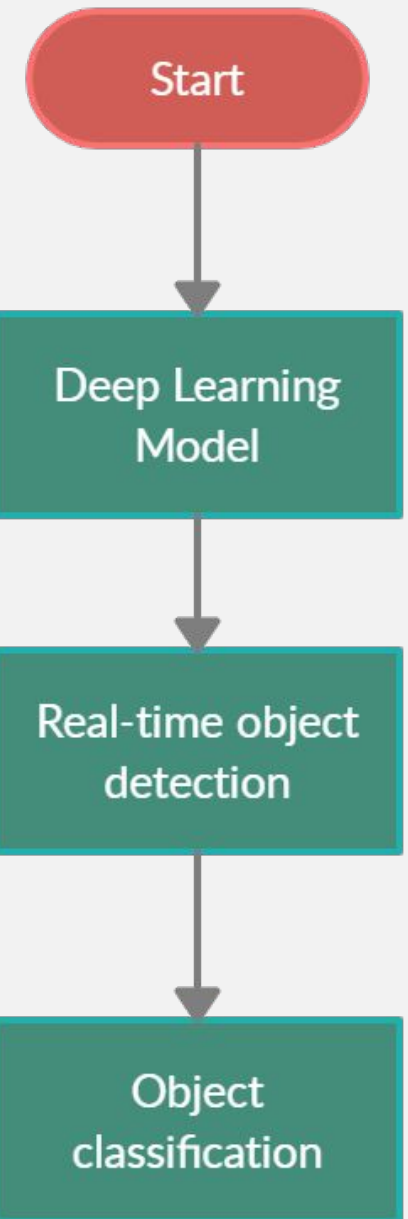
Raspberry Pi 4 model B



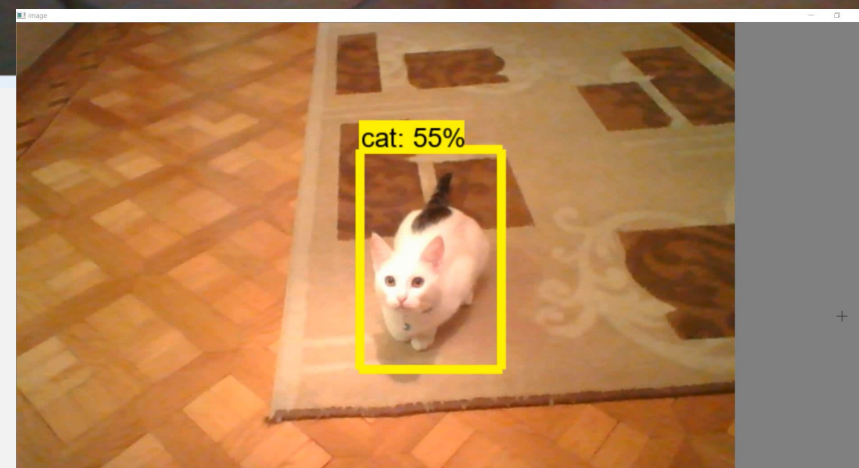
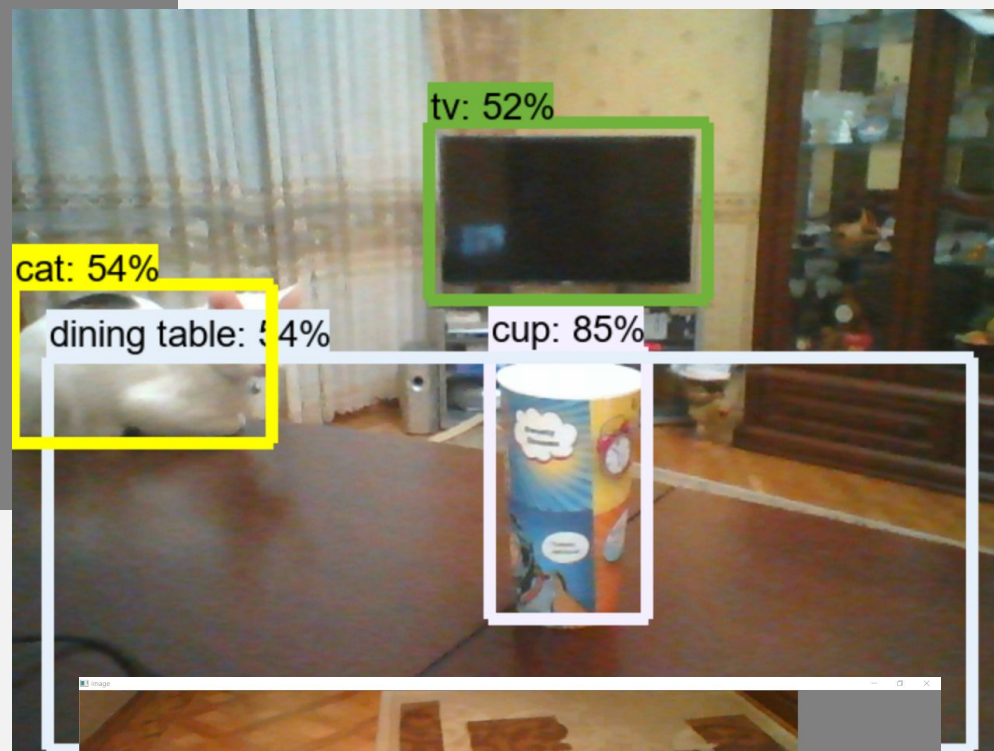
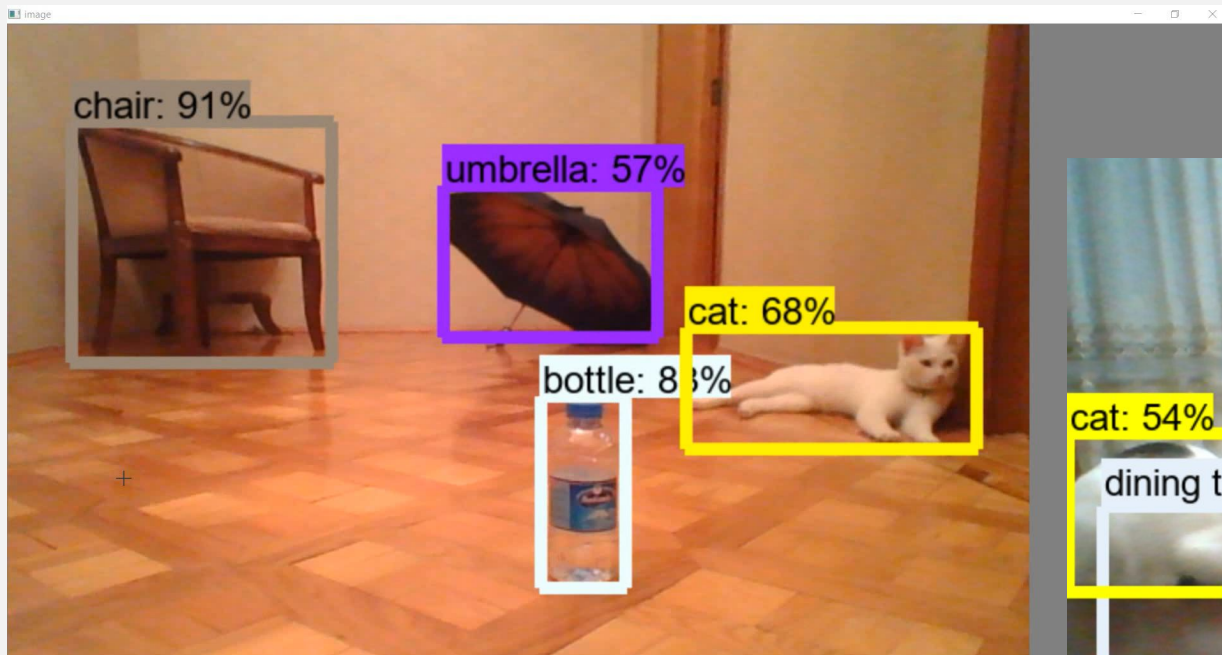
USB Bluetooth Dongle



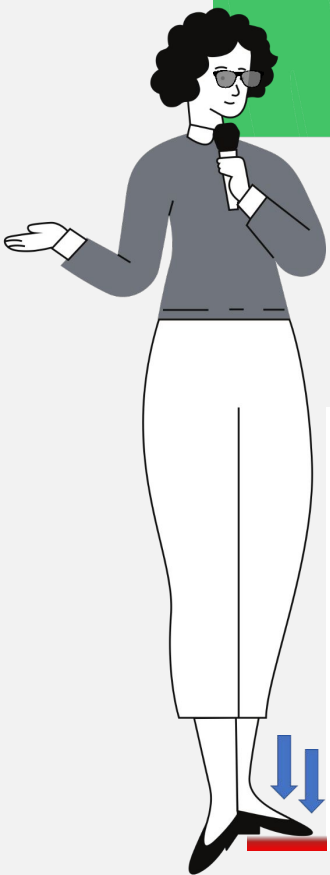
Pi camera



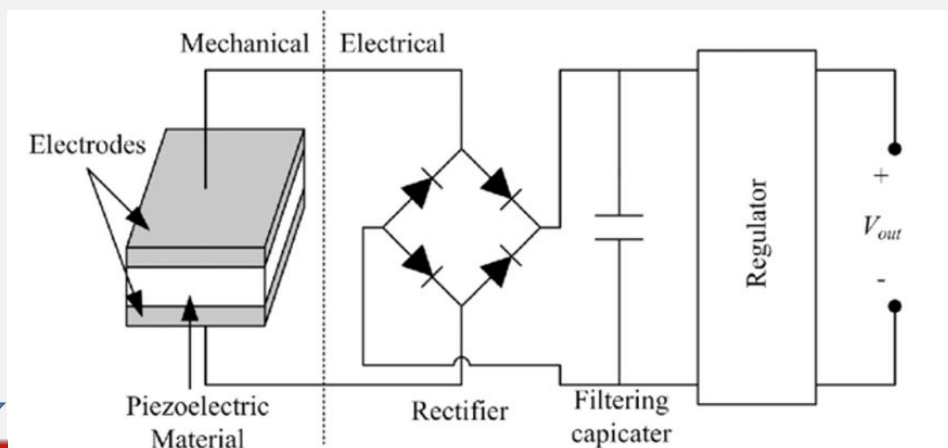
Testing



Main Power Source



Piezo Electric Transducer



AC → DC

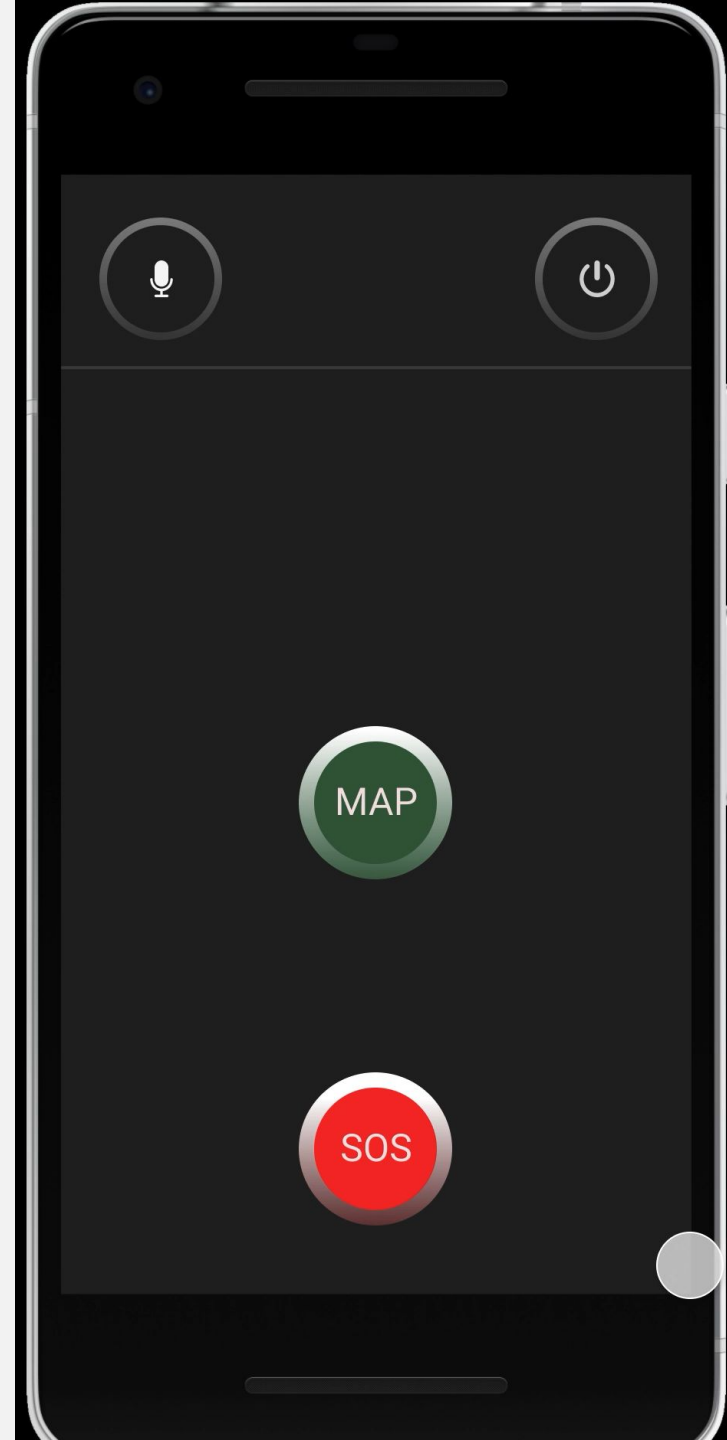
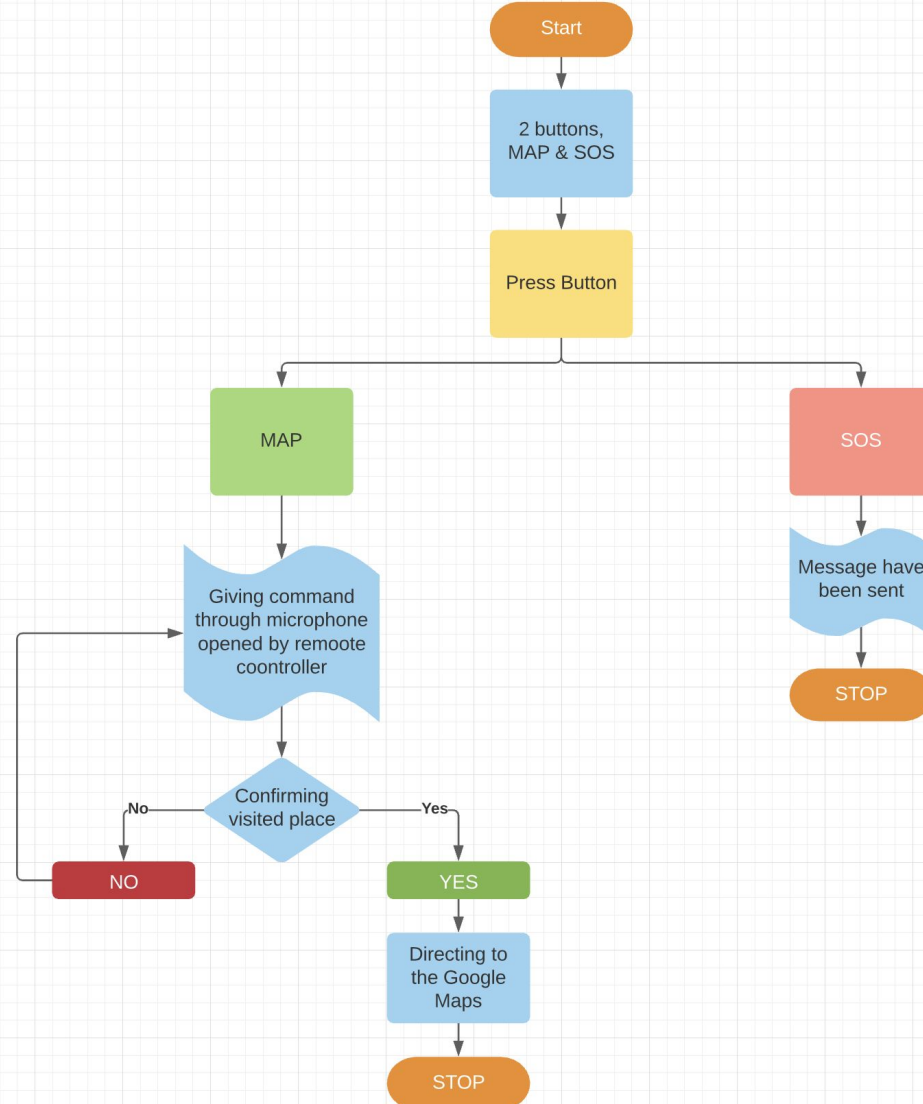
Triggers

1 Human walking

2 Wind

3 Rain...

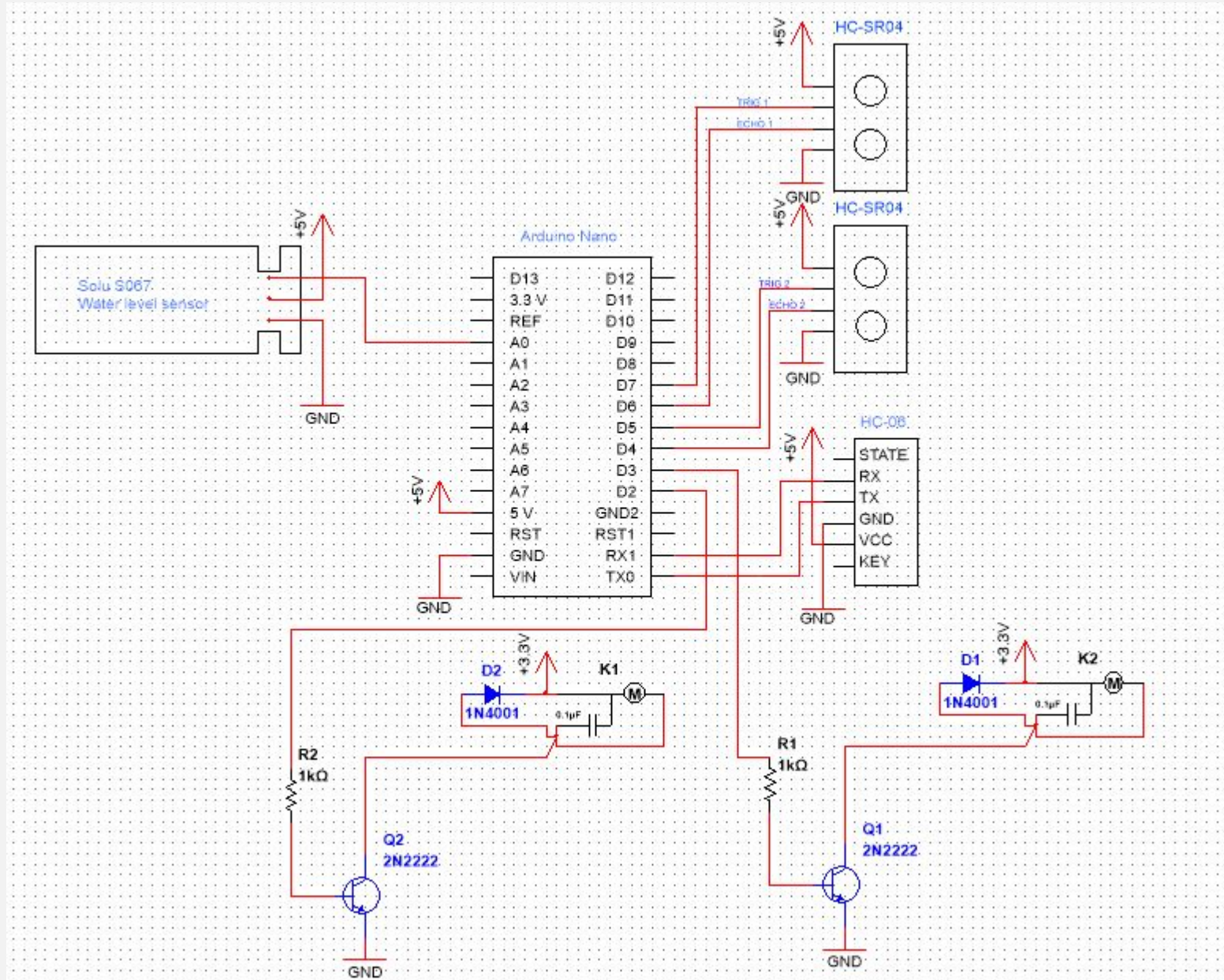
Flow of App



Shoe Module

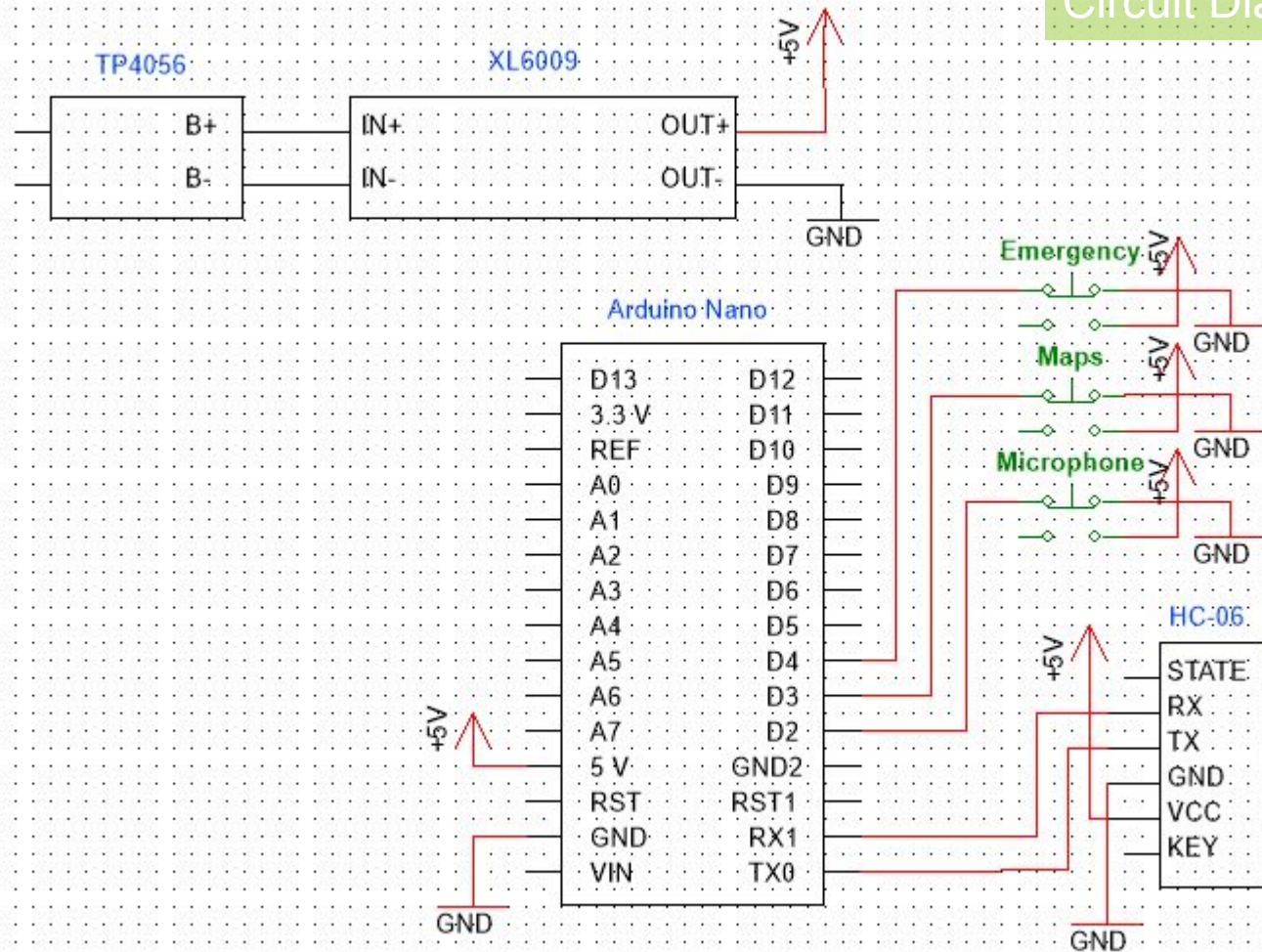
Devices

- Arduino Nano
- HC-SR04 Ultrasonic sensor
- HC-06 Bluetooth module
- Solu S067 Water level sensor
- Vibrating Motor
- 2N2222 Transistor
- 1N4001 Diode
- 0.1 μ F Capacitor
- 1k Ω Resistor



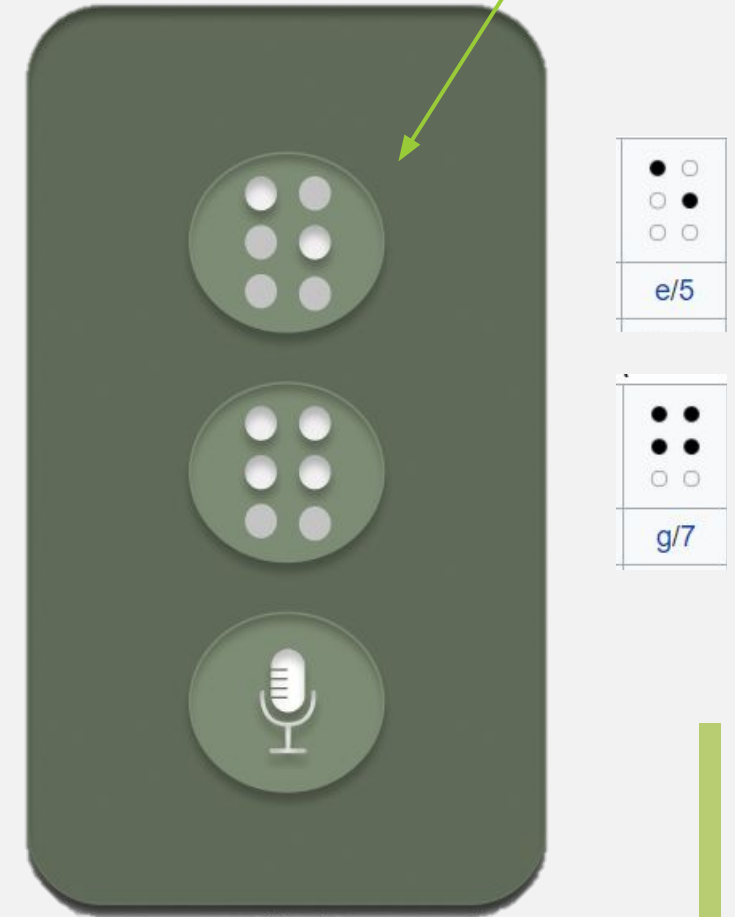
Hand Controller

Circuit Diagram



Model

Braille Alphabet



Thank You!