## Description

This is a distance calculator project built on Raspberry Pi. This measures the distance between the object and the sensor. This is assuming you have a working interface for your raspberry pi. This specific tutorial mounts the Raspberry Pi and uses Thonny IDE to run the code.

GitHub Link: <https://github.com/abhand3/IOT-projects-Anjita-Bhandari/tree/main/Distance%20Calculator>

## Materials Needed

### Hardware

1. 1 Raspberry Pi
2. 1 Breadboard
3. 1 HC-SR04 ultrasonic sensor
4. 4 Male-to-Male cables (any color works)

Connection Setup

1. Mount the extension in the breadboard
2. Connect the HC-SR04 ultrasonic sensor to the breadboard cables to match the diagram below.

A close-up of a circuit board

Description automatically generated with low confidence

Connection:

|  |  |  |
| --- | --- | --- |
| Cable Connections | | |
| Cable Color | HC-SR04 Connection | extension Connection |
| Red | VCC | 3.3v |
| Orange | Trig | GIPO17 |
| Yellow | Echo | GPIO27 |
| Black | GND | GND |

## Software Instructions

1. Open Thonny IDE and change to Python 3.7.3
2. Click Plus sign and copy paste the code (from flameDetector.py) and save it or

Download the file from GitHub and save it.

1. Run the code; if the code runs and measure the distance between object and sensor, You completed the project