

1. Purpose:

This directory has the data collected from sensors and tagged data .

2.Data Location:

This folder contains tagged data.Data is tagged for four activities and their corresponding codes are as follows:

ACTIVITY	TAG
i) person is sitting and monitor is on	0
ii)person is sitting and monitor is off	1
iii)person is not sitting and monitor is on	2
iv)person is not sitting and monitor is off	3

Each tuple of the file in this directory has the following format:

<DATE TIME, PIR, PING, LIGHT, TEMPERATURE, PRESSURE, ACTIVITY_TAG>

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<DATE TIME, PIR, PING, LIGHT, TEMPERATURE, PRESSURE>

3.Hardware Requirements

PIR sensor: To detect the human or non human based on the heat emission.

Echo Sensor: To detect the activity like sitting or not sitting.

Digital Light Sensor: To detect the activity like monitor is on or off.

Barometer: To get the Temperature and the pressure.

ADC: required to convert the reading from PIR sensor's analogue pin

4.Software Tools Used

AdaFruit Library : API used to collect Data from Gas Sensor and Barometer.

To install use:

```
curl https://raw.githubusercontent.com/adafruit/Adafruit-WebIDE/alpha/scripts/install.sh | sudo sh
```

5.How to start data collection through PI

After gathering all the sensors and installing required libraries, run main.py by executing `python main.py` command.It will start collecting the values from sensors and writing it to the .csv file.We are collecting data for 18 hours a day and then the program stops collecting data for next 6 hours.