Environmental sensor telemetry data, detailed in the blog post, published on [Towards Data Science](https://towardsdatascience.com/).

Content

The data was generated from a series of three identical, custom-built, breadboard-based sensor arrays. Each array was connected to a Raspberry Pi devices. Each of the three IoT devices was placed in a physical location with varied environmental conditions.

| device | environmental conditions |

|-------------------|------------------------------------------|

| 00:0f:00:70:91:0a | stable conditions, cooler and more humid |

| 1c:bf:ce:15:ec:4d | highly variable temperature and humidity |

| b8:27:eb:bf:9d:51 | stable conditions, warmer and dryer |

Each IoT device collected a total of seven different readings from the four sensors on a regular interval. Sensor readings include temperature, humidity, carbon monoxide (CO), liquid petroleum gas (LPG), smoke, light, and motion. The data spans the period from **07/12/2020 00:00:00 UTC** – **07/19/2020 23:59:59 UTC**. There is a total of **405,184** rows of data.

### Columns

There are nine columns in the dataset.

| column | description | units |

|----------|----------------------|------------|

| ts | timestamp of event | epoch |

| device | unique device name | string |

| co | carbon monoxide | ppm (%) |

| humidity | humidity | percentage |

| light | light detected? | boolean |

| lpg | liquid petroleum gas | ppm (%) |

| motion | motion detected? | boolean |

| smoke | smoke | ppm (%) |

| temp | temperature | Fahrenheit |

Task:

##### Use ML to Determine when a Person is near IoT Device

## Task Details

To predict, if possible, based on the sensor telemetry data, use Machine Learning to determine when a person is near one of the IoT devices, using more than just the motion detected reading.