

# PDIoT Lab 1.2 Instructions

INFR11150 Principles and Design of IoT Systems

School of Informatics, University of Edinburgh

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## Contents

- Collecting data
- Obtaining data on the phone
- Data collection protocol

## 1. Sensor placement

### Respeck

Everyone will need to wear the sensors in the same places to ensure consistency across the data. The **Respeck** sensor should be placed on the **left lower ribcage**, with the blue half against the skin. Ensure the Respeck is first put into the small plastic bag provided. You should be able to read the Respeck label when placing it on your chest – this ensures the sensor is held the right way up, as shown in the figure below.

Secure the sensor to the chest using the MeFix tape provided. If you run out of tape, you should let us know, and we will provide with more.

### Thingy

The Thingy sensor should be placed in the front right pocket of your trousers, with the circle placed in the upper right corner and the USB port facing downwards.

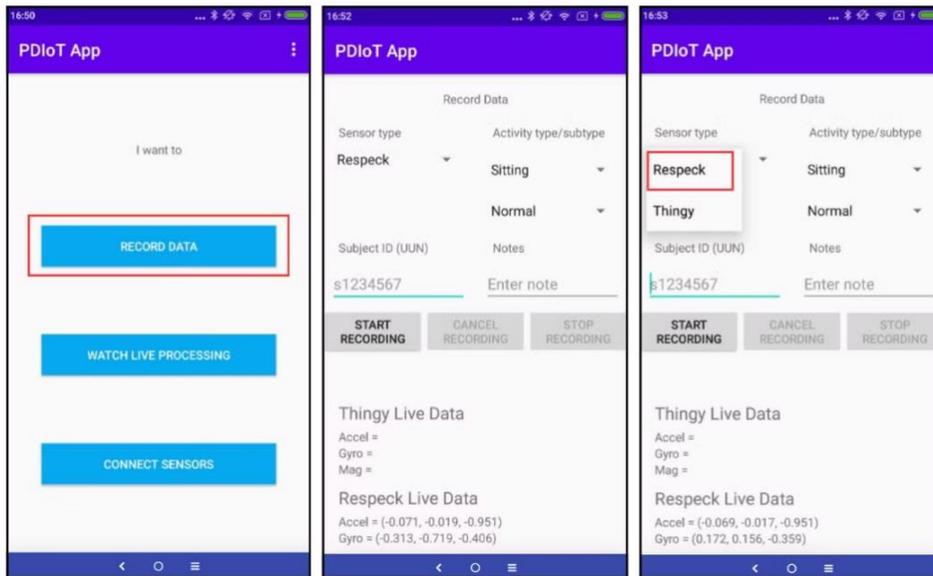


## 2. Data Collection

After connecting the sensors to the app, you can start collecting data by pressing the 'Record Data' button.

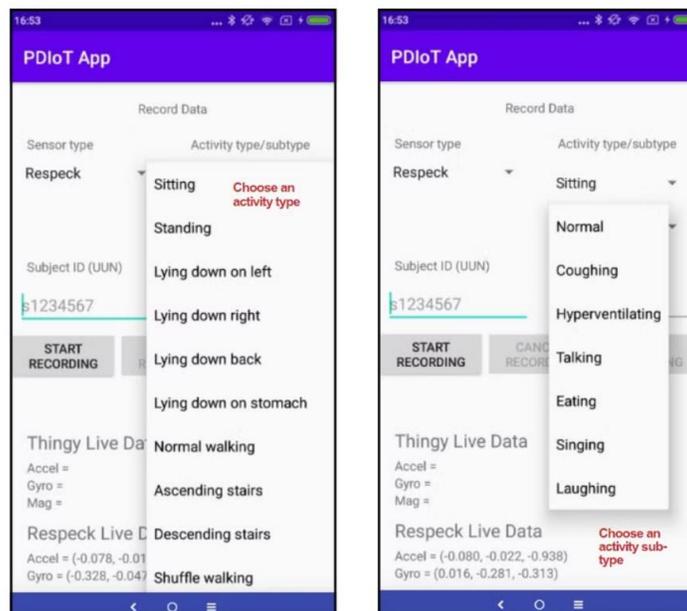
### 2a. Choose the sensor

Select the sensor you plan to collect data with. You cannot collect data from both the Thingy and Respeck sensor at the same time.



### 2b. Activity Drop-Downs

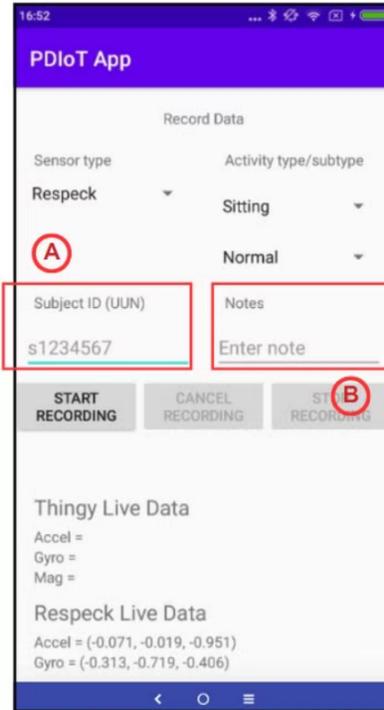
Choose an activity type. This consists of stationary and dynamic activities. After that, select an activity subtype. Activity subtypes consist of normal breathing, coughing, hyperventilation, talking, eating, and singing, and should only be performed in combination with a stationary activity (sitting, standing, and lying down).



## 2c. Subject ID and Notes fields

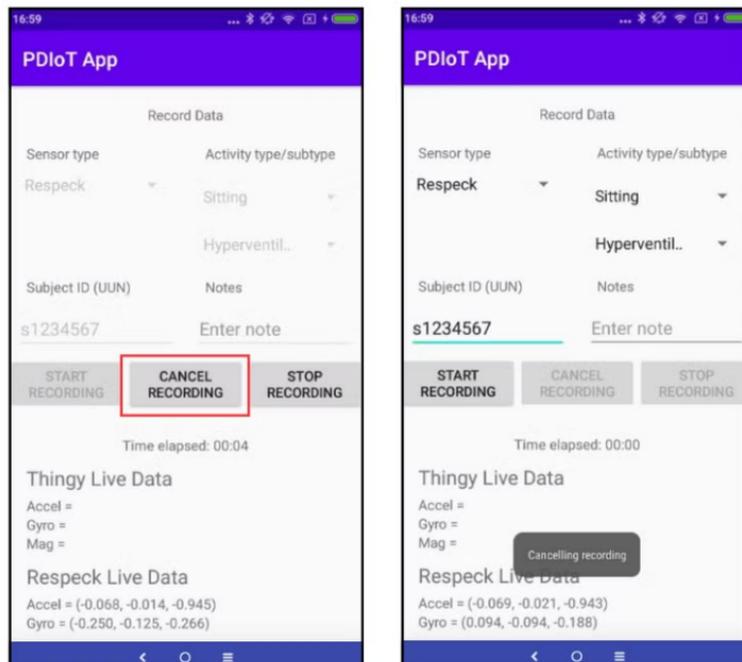
A – Fill in the subject ID field. This should be your student UID.

B – Enter any additional notes you may want to include. This will be saved along with the recording.

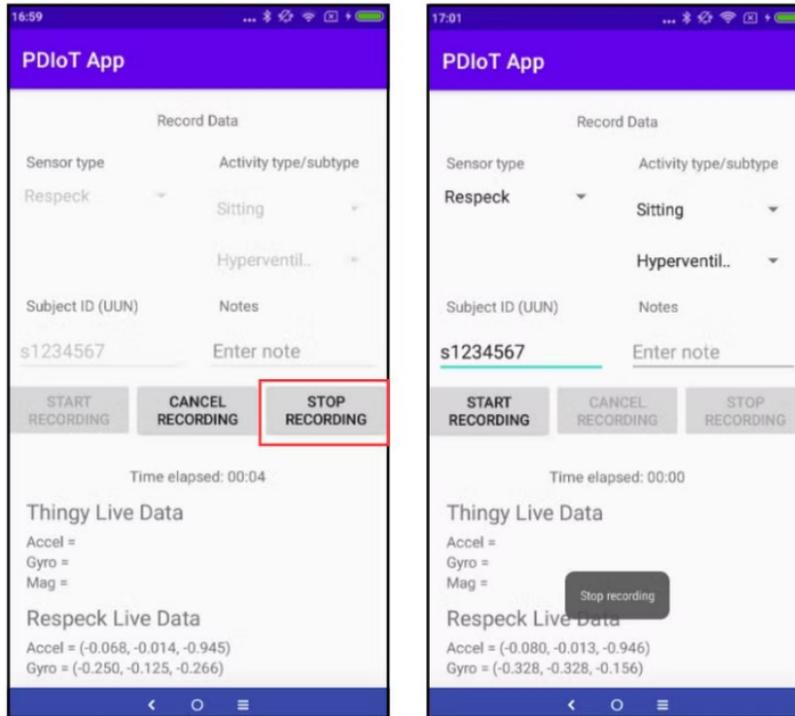


## 2d. Start recording, Cancel recording, and Stop recording

Cancel recording – This cancels the current ongoing recording and does not save it to your phone.



Stop recording – This stops the recording and saves it to your phone.



### 3. Viewing collected data files

Files are saved on the phone's internal memory as csv files, on the path: [Android > app > data > com.specknet.pdiotapp > files > Filename.csv](#)

You can access these files either by:

- connecting your phone to a computer via USB and checking the internal memory, or
- navigating to this folder from a file browser app on your phone and send them via Bluetooth, email, message etc.

Depending on which Android version you are running, you might need additional apps rather than the pre-installed ones to access these files. From Android version 11, you should use apps like [Total Commander](#) to view hidden system files. Any Android version lower than 11 will allow you to see these files in a normal file browser on your phone.

The filename is formatted as

follows: `{sensorType}_{subjectID}_{activityType}_{subActivityType}_{timestamp}.csv`

For the list of activities to collect, please refer to the Coursework 1 document.