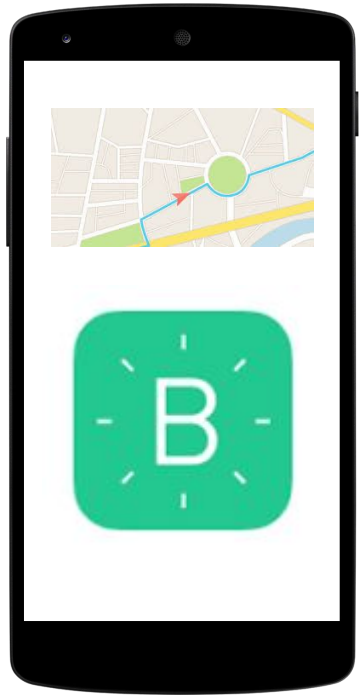
AIR SAVER

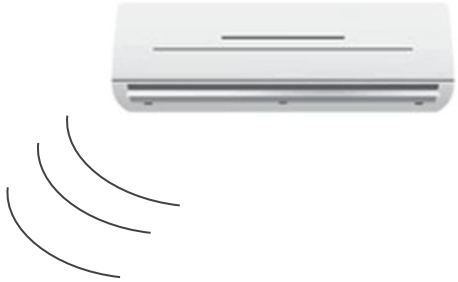
Blynk GPS Trigger

The Blynk App on my phone will track my location. Once I leave the house and pass a distance of 1km the AirSaver program will start on the Raspberry Pi.



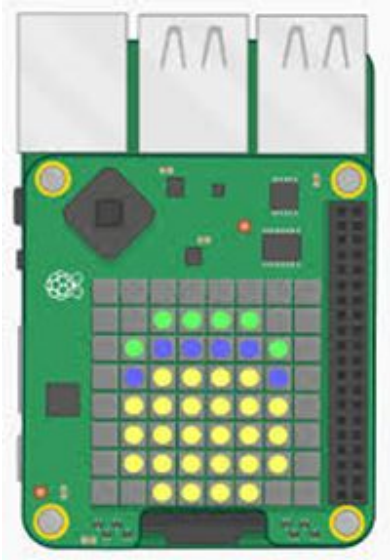
AIR SAVER

To overcome the temperature inaccuracies from the senseHat, I am going to review the temp readings from the pi when the AC is on and off and adjust the temp range accordingly



SenseHat Temperature Sensor

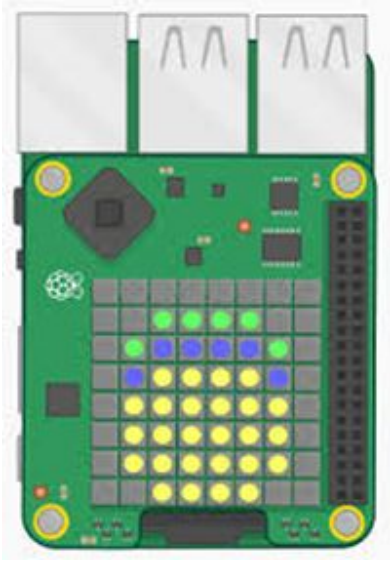
The senseHat will begin recording the temperature of the apartment. After 10 mins if the temperature has not increase above 38 degrees, it shows the AC unit has been left running.



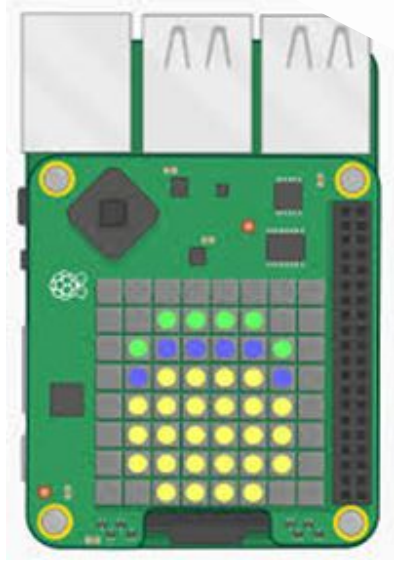
AIR SAVER

Smart AC unit

Ideally the program would then switch off the AC if it has reported it was left on. However, as I don’t have a smart AC unit I will change the LED lights on the sense hat to light up as a snowflake instead.



AIR SAVER



ThingSpeak - ThingTweet (HTTP Protocols)

ThingSpeak will also be receiving data from the senseHat. If the AC unit has been left on then ThingSpeak will react and send a tweet to notify the user that it is going to be automatically switched off - Postman will be used to test this.

AIR SAVER

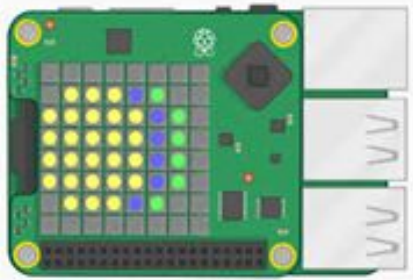
Temperature information is sent from the Raspberry Pi senseHat to my phone via the Blynk app

ThingSpeak will react to the temp and send a Tweet

ThingSpeak

If the phone is past a 1km radius of the house, and the temp stays below 38 degrees after 10 minutes tweet will be sent to the Smart Home Acc, notifying of the user of a automatic shutdown of the AC unit

GPS trigger will notify the pi if the user has gone further than 1km from home



Postman is used for testing

If the phone is past a 1km radius of the house, and the temp stays below 38 degrees after 10 minutes the Raspberry Pi the AC unit will be shut down though the smart home AC unit

To overcome the temperature inaccuracies from the senseHat, I am going to review the temp readings from the pi when the AC is on and off and adjust the temp range accordingly