Poor Weather/ Rain Detector

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My proposed project is a smart home device that detects when rain/bad weather is approaching over your home and notifies you to bring in your clothes off the washing line. The project uses the raspberry pi sensors (pressure, humidity, temperature) to detect potential bad weather/rain. This data would be stored on a IOT platform such as ThingSpeak. An MQTT service is then used to send an alert to a device when the sensors detect poor conditions.

This device would be activated by pressing the button on the SenseHat once washing has been put out to dry and then pressed again when finished. While idle the SenseHat LED matrix will display the current percentage chance of rain using information taken from a web API.

The device will also be configured as a Bluetooth beacon that will use eddystone/ibeacon to transmit the URL of a custom website that will display the sensor data as well as other weather information/analytics relevant to the location of the device.

Tools, Technologies and Equipment

Python, JavaScript, html, Glitch, IntelliJ Idea ThingSpeak, IFTTT, met Éireann web API, eddstone/ibeacon, HTTP, BLE, Raspberry Pi, SenseHat.

Project Repository

Link to Repository:

https://github.com/seancrowley-jpg/compsys\_assignment2