Create IFTTT Trigger

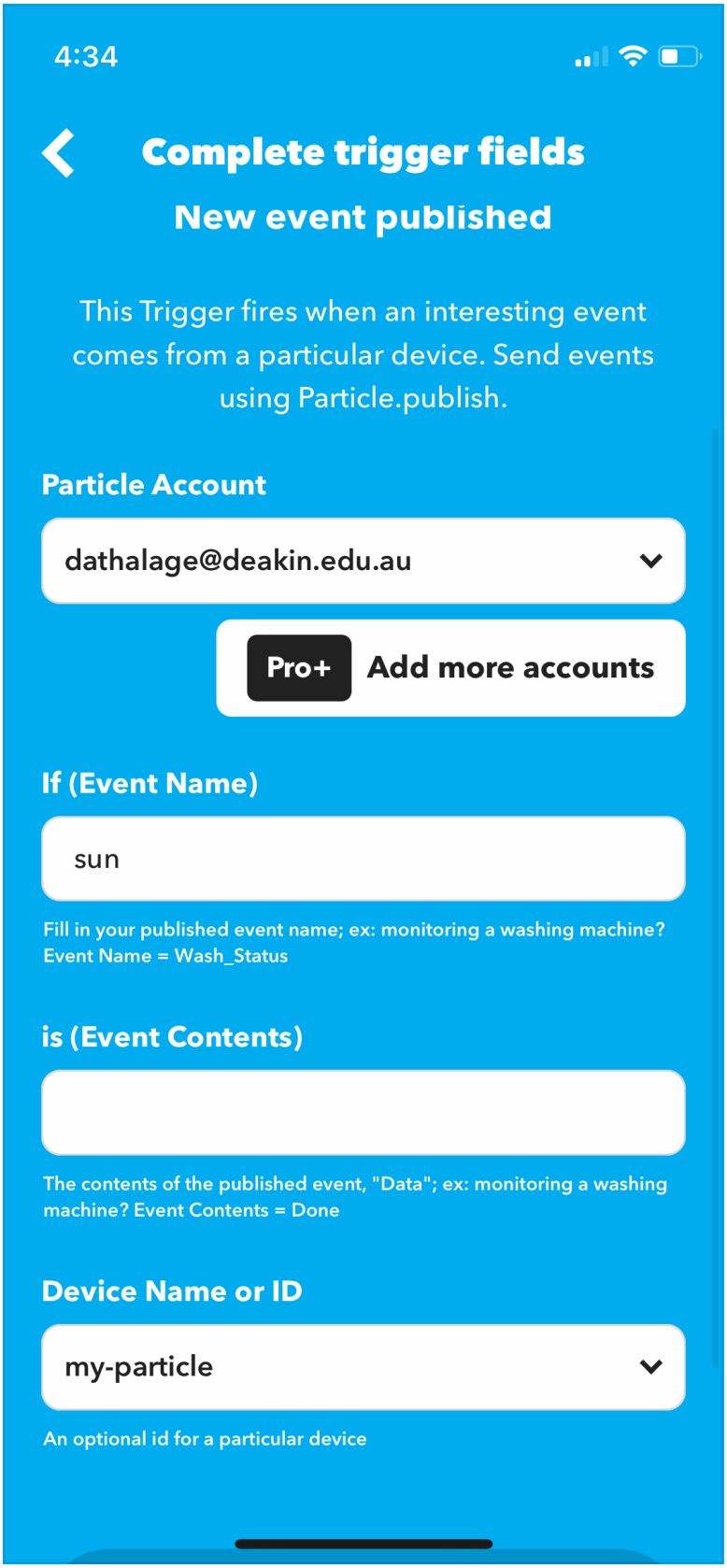
1. Describe how your system works in writing and clearly outline the following: the schematic of the circuit board (breadboard), the overall infrastructure of the various parts of the system, the IFTTT trigger mechanism, and the notification mechanism.

- Pin configuration
  - **Photoresistor - Particle Argon**
  - GND - GND
  - VCC - VUSB
  - OUT - A0

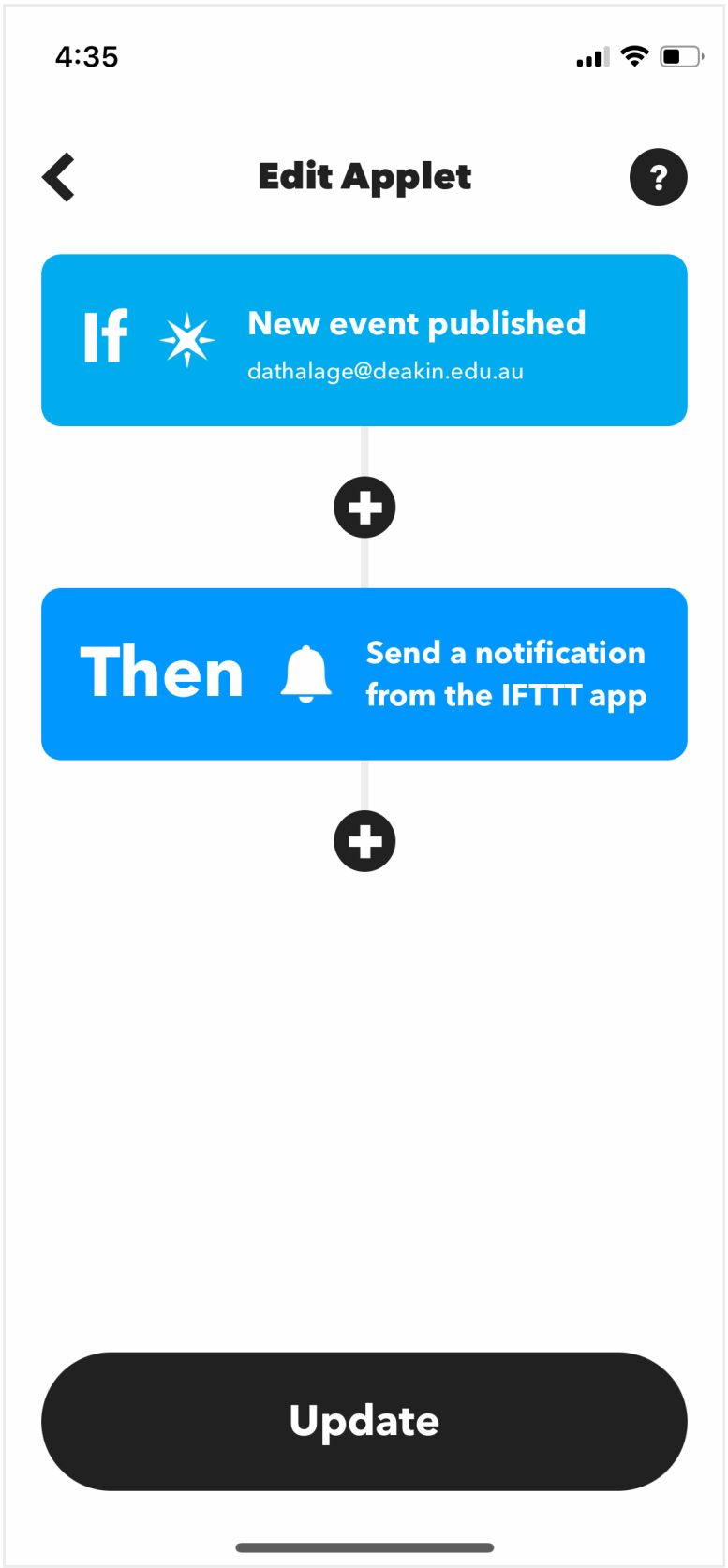
- Code

```
const int thresh = 2500;   // Threshold to trigger the event
int lightIntensity = 0;    // Light intensity variable
int photoResistorPin = A0; // Analog pin that the sensor is connected to
bool isSunUp = false;      // Stores previous event


// setup() runs once, when the device is first turned on.
void setup() {
    Serial.begin(9600); // Serial for debugging
}

// loop() runs over and over again, as quickly as it can execute.
void loop() {
    lightIntensity = analogRead(photoResistorPin); // Reading sensor value

    Serial.println(lightIntensity); // printing for debugging

    if (lightIntensity <= thresh && isSunUp) {
        // if intensity is below the threshold and current event is not already triggered
        isSunUp =! isSunUp;
        Particle.publish("sun", "down"); // publish event
        Serial.println("Sun down event triggered");
    }

    if (lightIntensity > thresh && !isSunUp) {
        // if intensity is above the threshold and current event is not already triggered
        isSunUp =! isSunUp;
        Particle.publish("sun", "up"); // publish event
        Serial.println("Sun up event triggered");
    }

    delay(10s);
}
```

- IFTTT
  - Create an account and link your particle account to it
  - Create a new applet
  - As “IF-THIS” section add the particle event



- as THEN-THAT functionality add app notification
- the applet should look like this



2. Create a repository named SIT210-Task3.2C-ParticleIFTTT on Github. Upload your code to the repository. Include the link to your repository there.

- https://github.com/Kushan-Nilanga/SIT210/tree/master/ifttt

3. Produce a video demonstrating your solution. Provide the link in your submission.

- https://youtu.be/KnJ7CIz1ulQ

4. In less than two paragraphs, describe how you would test the system you have built?

- First events can be debugged at the microcontroller level by using Serial.println()
- Then we can check the published events using particle console
- Next step would be to check the IFTTT integration of particle and check if you are using correct device names and event names
- Finally we can time when an event is triggered from the Particle argon and IFTTT and compare if the outputs have a constant delay. (about 30 seconds for this example)
- We can check the event propagation from the Argon to IFTTT from Serial console, Event log (particle console), Event log(IFTTT)