

Task 3.2C – Answers

Question #1:

Circuit Board Schematic:

Connected onto a breadboard is a Particle Argon and GY-30 light sensor. The sensor is connected to the argon via the VCC, SCL, SDA, ADD and GND pins.

Particle Argon Firmware:

The program running in the argon simply takes readings from the light sensor. It also publishes the readings to Particle's website so that it can be read by the IFTTT service.

IFTTT Trigger 1:

Trigger: If light sensor reading is greater than or equal to 10000 lux.

Action: Email the terrarium's owner saying it is now in sunlight.

IFTTT Trigger 2:

Trigger: If light sensor reading is less than 10000 lux.

Action: Email the terrarium's owner saying it is now no longer in sunlight.

Question #2:

<https://github.com/Goolog/SIT210-Task3.2C-ParticleIFTTT>

Question #3:

<https://youtu.be/7R7ukbqAOh8>

Question #4:

To test a system like this, you would need to figure out how much luminosity is required to be sensed by the light sensor when facing direct sunlight. You would then use that value as the threshold for deciding whether to notify the user or not. The second aspect of the system you need to test is the notifications. You would need to make sure that the system is sending you the correct notifications. To do this, you simply make sure that your IFTTT recipes are configured correctly. You can do this by waiting to receive a notification, then when received, check it against the current luminosity reading in the Particle Console or the serial monitor.