Minutes arising from the 2nd Meeting of Group 19 Project

Time: 1300-1400

Date: 21/02/23

Location: R413a

Present: RI, JFM, XZ, GB, RW

Apologies:

**Minutes**

GB may have access to lux meter if that would assist with testing of the LDRs. It might not be the correct equipment for testing as it filters to react as a human eye would (reacting most to green light).

The servo motor torque could be tested (possibly 1kgcm) – could possibly hang varying weights from servo and see if it can move them.

Power measurement could be achieved very simply if the load resistance is known (using P=V^2/R). For measuring voltage values > 3.3 V a voltage divider of known resistance is acceptable. An alternative would be using an op-amp.

Should check the maximum sink and source current of the multiplexer inputs for the LED indicator. The IO pin should possibly not be connected to source voltage.

Charlieplexing was discussed as an option for controlling all the LEDs with minimal pins of the MSP430. 4 pins would be required to control 8 LEDs in this method.

Having all code comments in English would be appreciated.

The PV cell should be chosen soon so that its mass, output voltage range, dimensions and load can be chosen, allowing the progression of other aspects of the project.

Measuring the power output of the PV cell could be awkward if using a DMM to measure current as measurements would need to be taken quickly and noted down.