



Activity 3.1: LED Power

Team
#3344

Task 1: Solar Panel Experiment 1 Set-Up

- ☒ Plug in the LunaSat
- ☒ Select the correct board, processor and port
- ☒ Select the correct sketch in Arduino IDE (GLEE_LED_Blink)
- ☒ Verify and upload the code to the Arduino

Task 2: Set Up the Bridge Connectors and Test

- ☒ Unplug the LunaSat from the FTDI and the colored wires
- ☒ Disconnect the connector cables from the LunaSat
- ☒ Install P1, P3, and P6 Jumpers
- ☒ Verify that the LED on the LunaSat is blinking in direct sunlight
- ☒ Verify that the LED is blinking with the back panel facing the Sun

Task 3: Explore!

Test out the capabilities of the LunaSat by covering the solar panels (SP).

| Trial | Shade How Much of the SP is Covered | Is the LED Still Blinking? | Voltage Reading |
|-------|-------------------------------------|----------------------------|-----------------|
| 01 | <div>0</div> | Yes | 3,12 |
| 02 | <div>1</div> | No | 2,6 |
| 03 | <div>2</div> | No | 2,1 |
| 04 | <div>3</div> | No | 1,7 |
| 05 | <div>4</div> | No | 1,2 |



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| | | | |
|----|--------------|----|-----|
| 06 | <div>5</div> | No | 0,6 |
| 07 | <div>6</div> | No | 0,1 |

How much of the LunaSat can be shaded before the LED stops blinking?