

For the following Auto Dimmer Arudino Circuit, complete the following tasks:

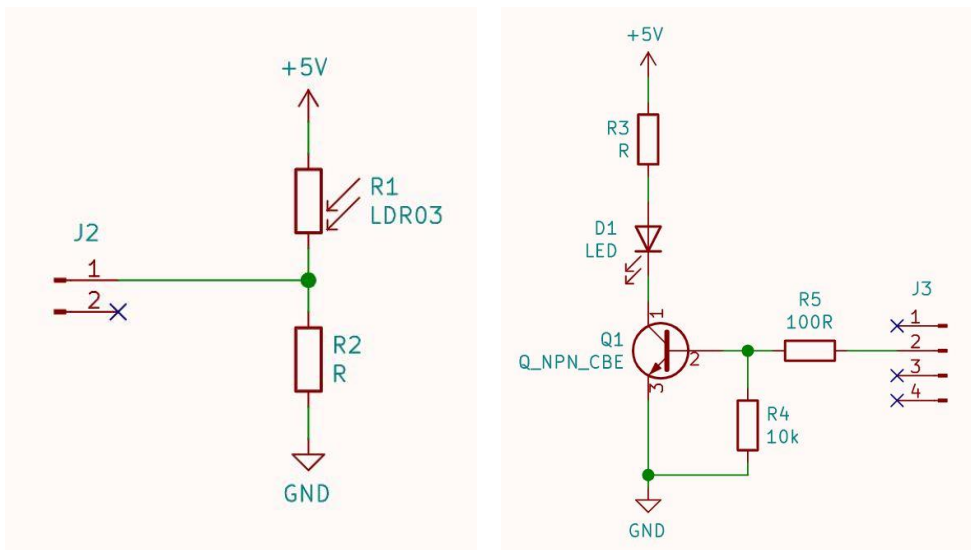
- Create an Arduino function to calculate a suitable resistor value for LED (R3)
- Create an Arduino function to calculate a suitable resistor value for LDR (R2)
- Create an Arduino function to calculate if all your resistors are within tolerance
- Create an Arduino function to calculate if resistors are within specific power rating
- Create an Arduino function to calculate the output voltage range of measurement circuit

Submission Requirements:

- A separate Arduino IDE file for each function.
- A word document that includes any formulas or equations developed or used in the tasks e.g. equation for finding R1

This task should not take more than 1 hour and must be submitted at the end of the session.

Ensure that the functions are properly commented to allow for easy view.



Parts used:

LED: SLI-430

LDR: PDV-P8103

NPN: TN0106 C080813

Arduino Uno Rev 3