

August 2018

Section 1:

- a) A frequency of 100 was used. This allows for a wide range of brightness options as well as an easily devisable number to meet the increment requirements of this practical.
- b) For ease of computation, the duty cycle was set as a percent of the frequency. This was done by incrementing the brightness up on a scale of 1-10 and then multiplying this value by 10 to achieve a percent out of 100, this was then set as the duty cycle. For the dimmer, the same approach was taken however the scale was 1-7 as there were only 7 levels of dimming as per practical requirements.

c)

