

Lab Worksheet #3

CA5305 (Internet of Things)

October 2021 – January 2022

Instructor: Dr. M. Deivamani

Due: Tuesday, November 16, 2021(11:59pm)

Task 1: Develop a BLINK sketch in Arduino

Challenge 1a – blink with a 200ms second interval.

Challenge 1b – blink to mimic a heartbeat

Challenge 1c – find the fastest blink that the human eye can still detect...

1 ms delay?

2 ms delay?

3 ms delay???

Task 2: Develop traffic light using 3 LED's (red, yellow, and green) that

- Illuminates the green LED for 5 seconds
- Illuminates the yellow LED for 2 seconds
- Illuminates the red LED for 5 seconds
- repeats the sequence

Note: that after each illumination period the LED is turned off!

Task 3: Modify Task 2 to have an advanced green (blinking green LED) for 3 seconds before illuminating the green LED for 5 seconds

Task 4: Try adding other LEDs and develop your own morse code flashing
How about? Knight rider? Disco? Police light??