

## **Part A: Project statement**

My project's purpose is to design a sensor that can alert the user that someone is breaking social distancing (i.e. standing closer than 6 feet from the user) and alert the user using a buzzer and LED lights. This device could both be carried by a singular person or be used for areas where people are most likely to gather like a library or on the line at Tim Hortons for example. This project could be useful as many people forget the importance of social distancing.

## **Part B: Initial Constraints and Specifications**

- Will need a button to turn sensor on and off
- Sensor will have to sense at least 6ft away

## **Part C: Asks**

## **Part D: Preliminary BOM**

- Nucleo-L4R5ZI
- USB A to Micro USB B cable
- 3 LED lights(one red, one blue and one green)
- 3 resistors
- At least 10 male to male jumper wires
- Ultrasonic transduce
- Buzzer