**AUGUST DIY PROJECT REPORT**

**ARDUINO CONTROLLED VISITOR COUNTER USING ULTRASONIC SENSOR** (ACVC)

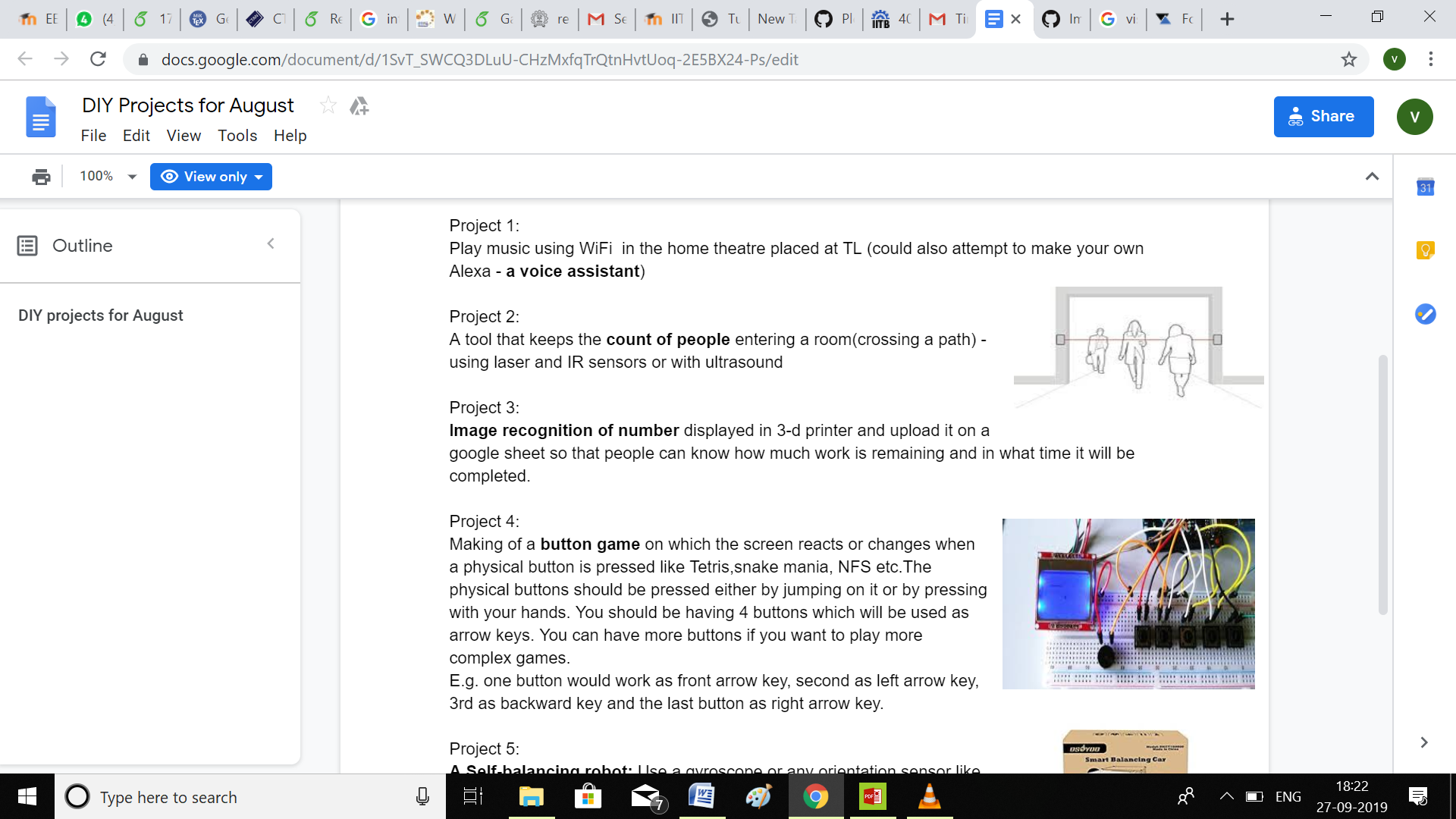


***Team Name****-* ***The Wolf Pack***

***Team Members****- 1)Siddhesh Sali 2)Yash Bhavsar*

*3)Vinit Awale 4)Varun Ginde*

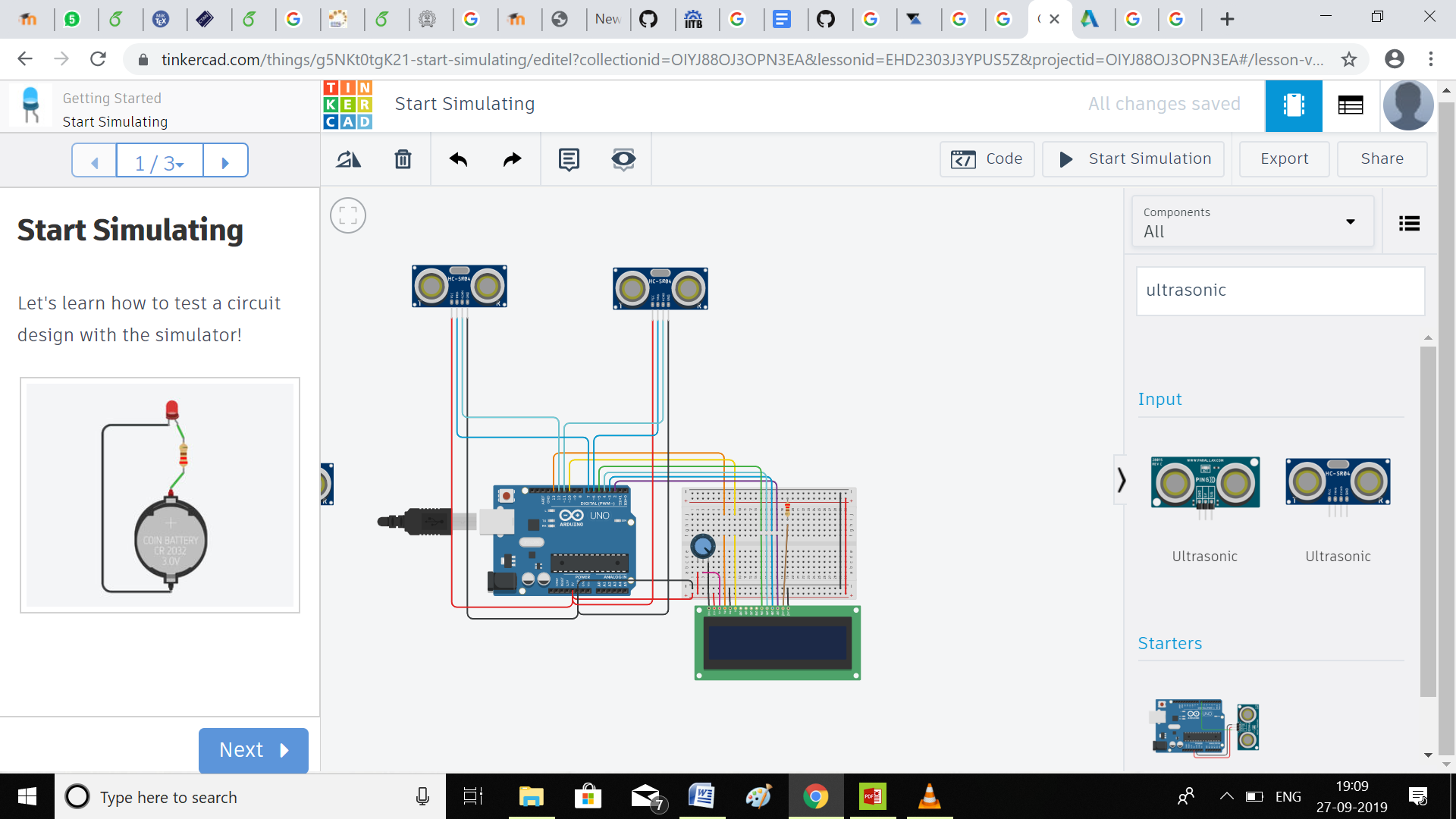
**PROJECT DESCRIPTION:**

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**ELECTRICAL COMPONENTS USED:**

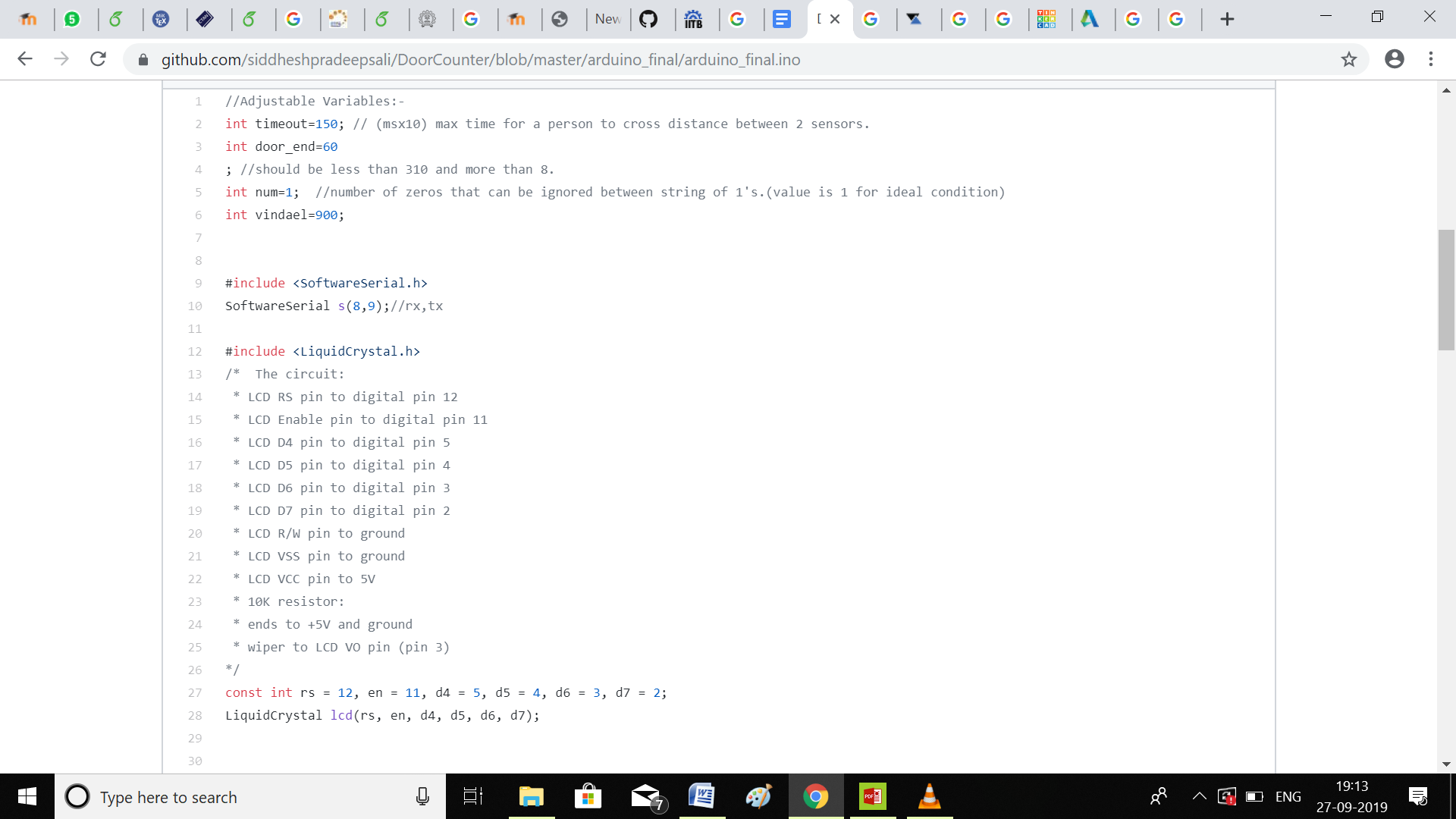
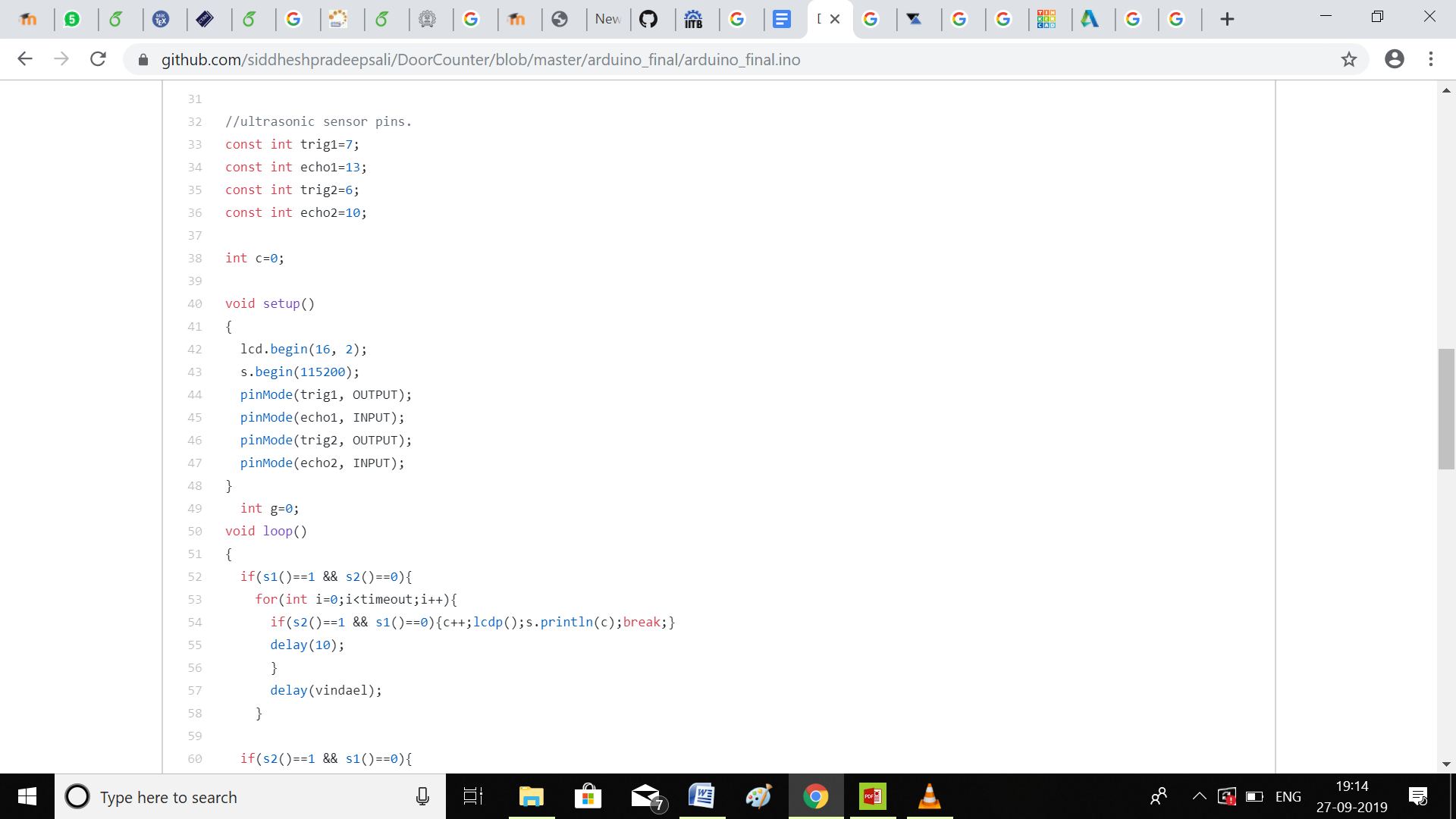
* Ultrasonic sensor HC- SR04 (x2)
* Arduino Uno R3
* 16X2 LCD Display JHD 162A
* MCU Node (Only used to upload the count on internet)
* DC Adapter for power supply

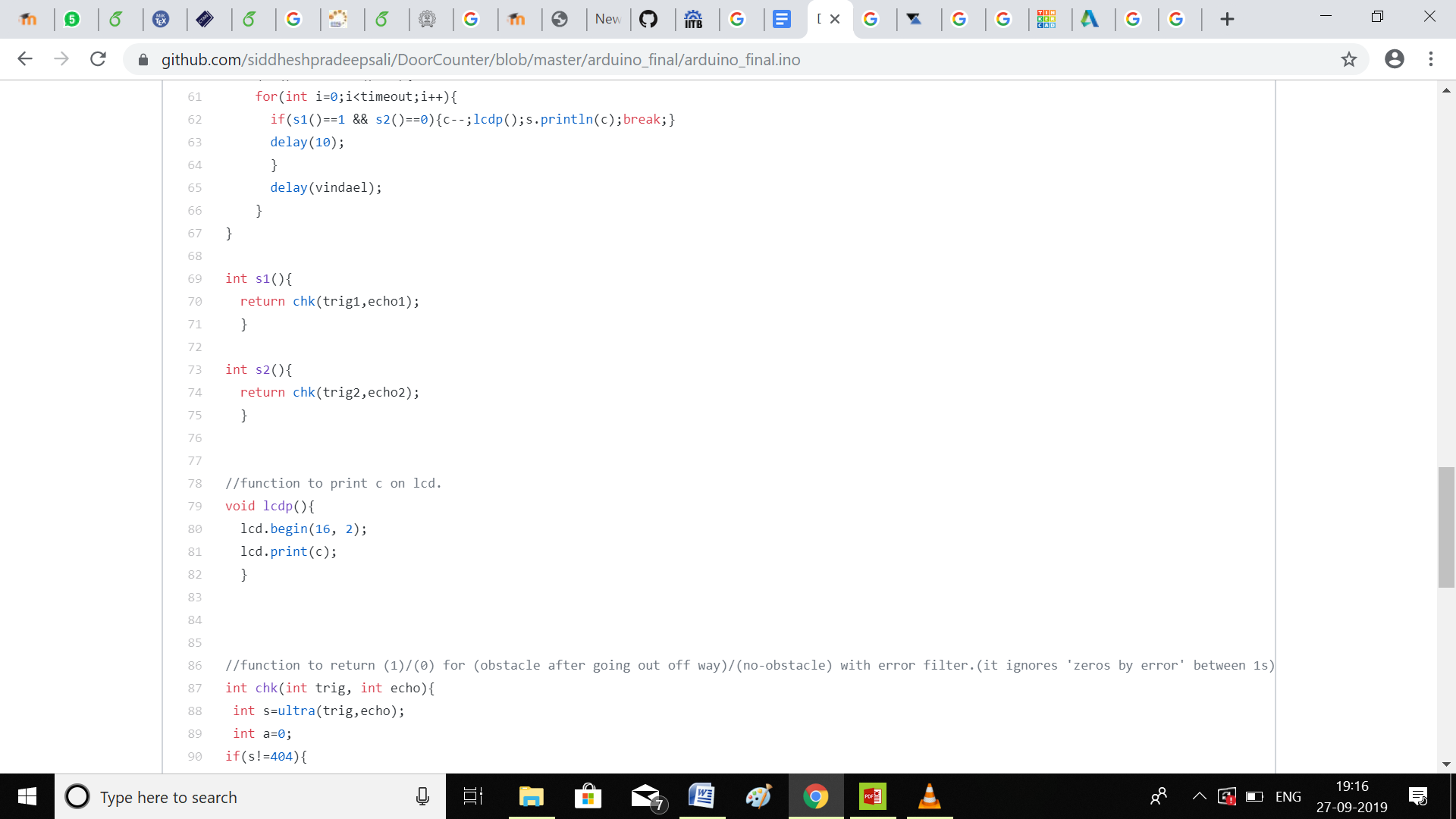
**CKT DIAGRAM:**

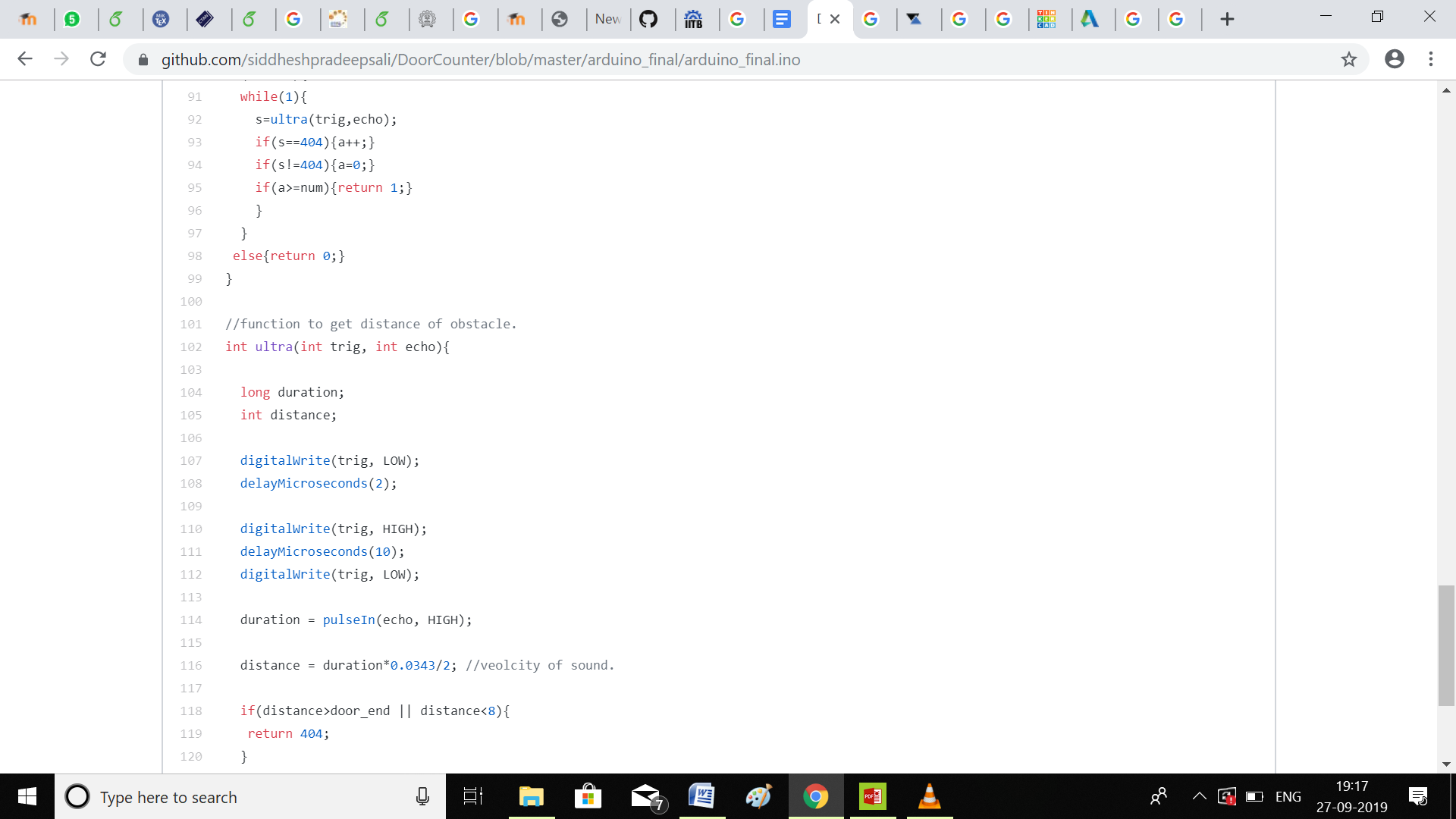


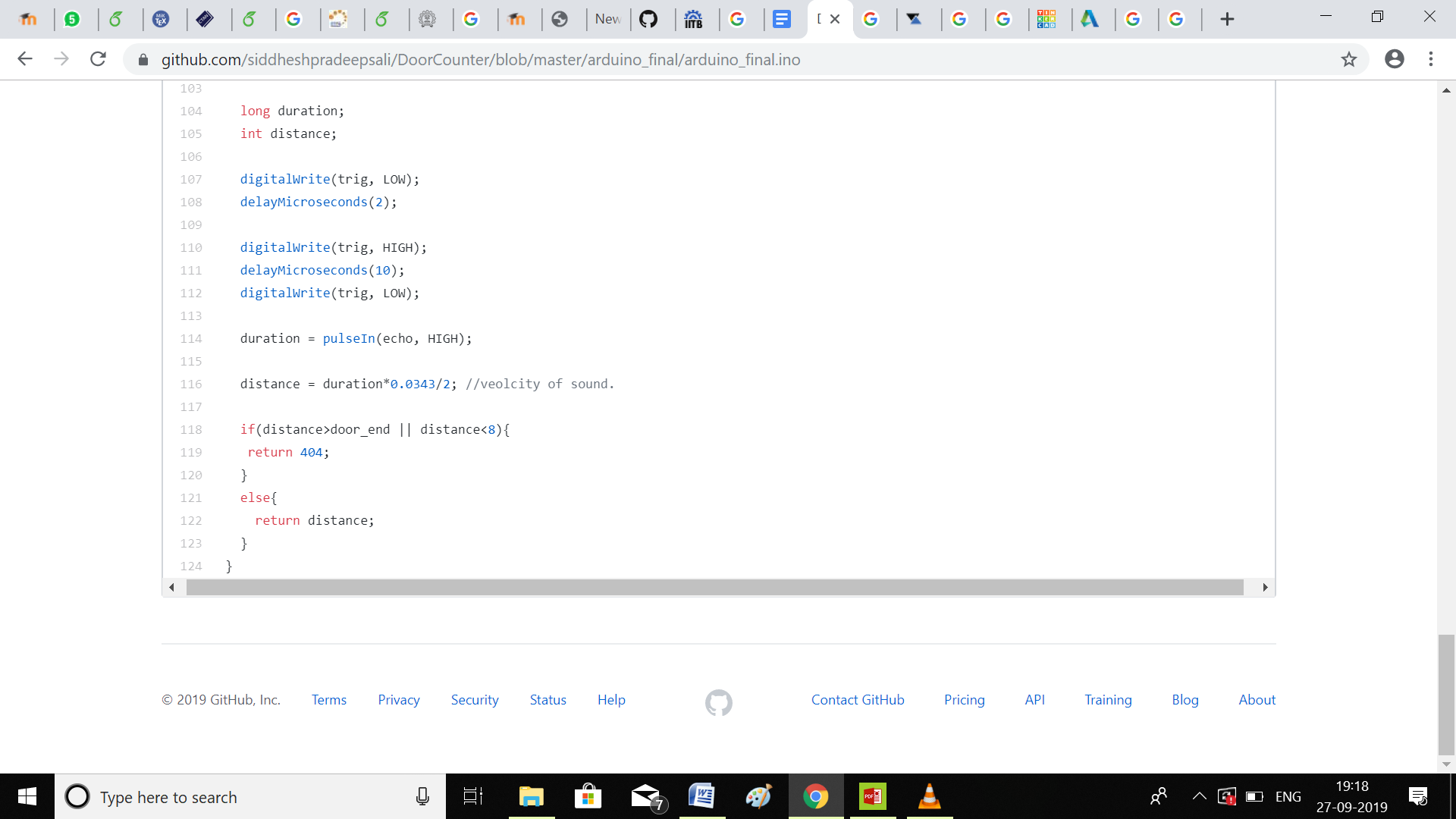
(Software used to make the circuit- Tinker Cad)

**ARDUINO CODE:**

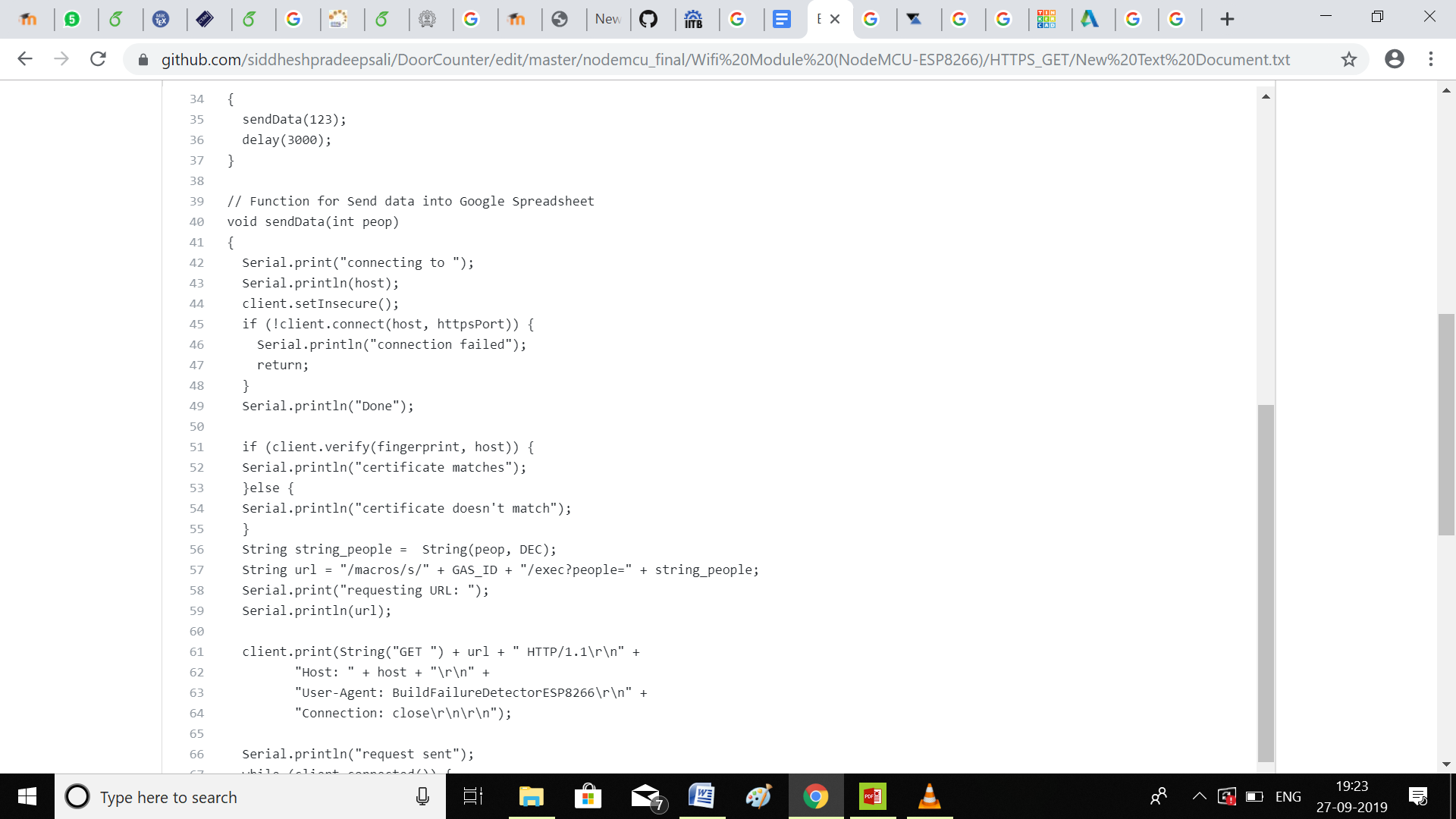
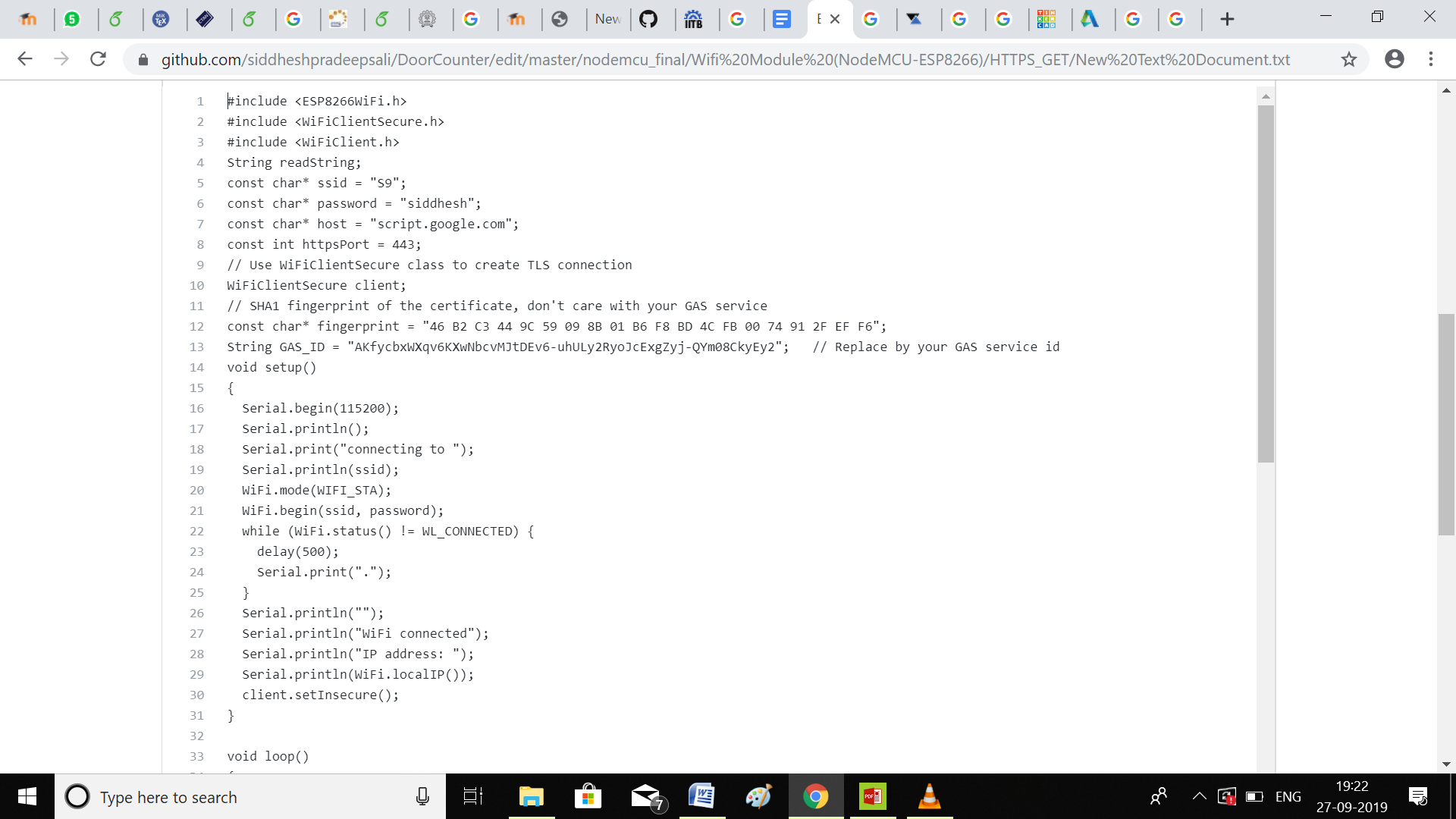
 

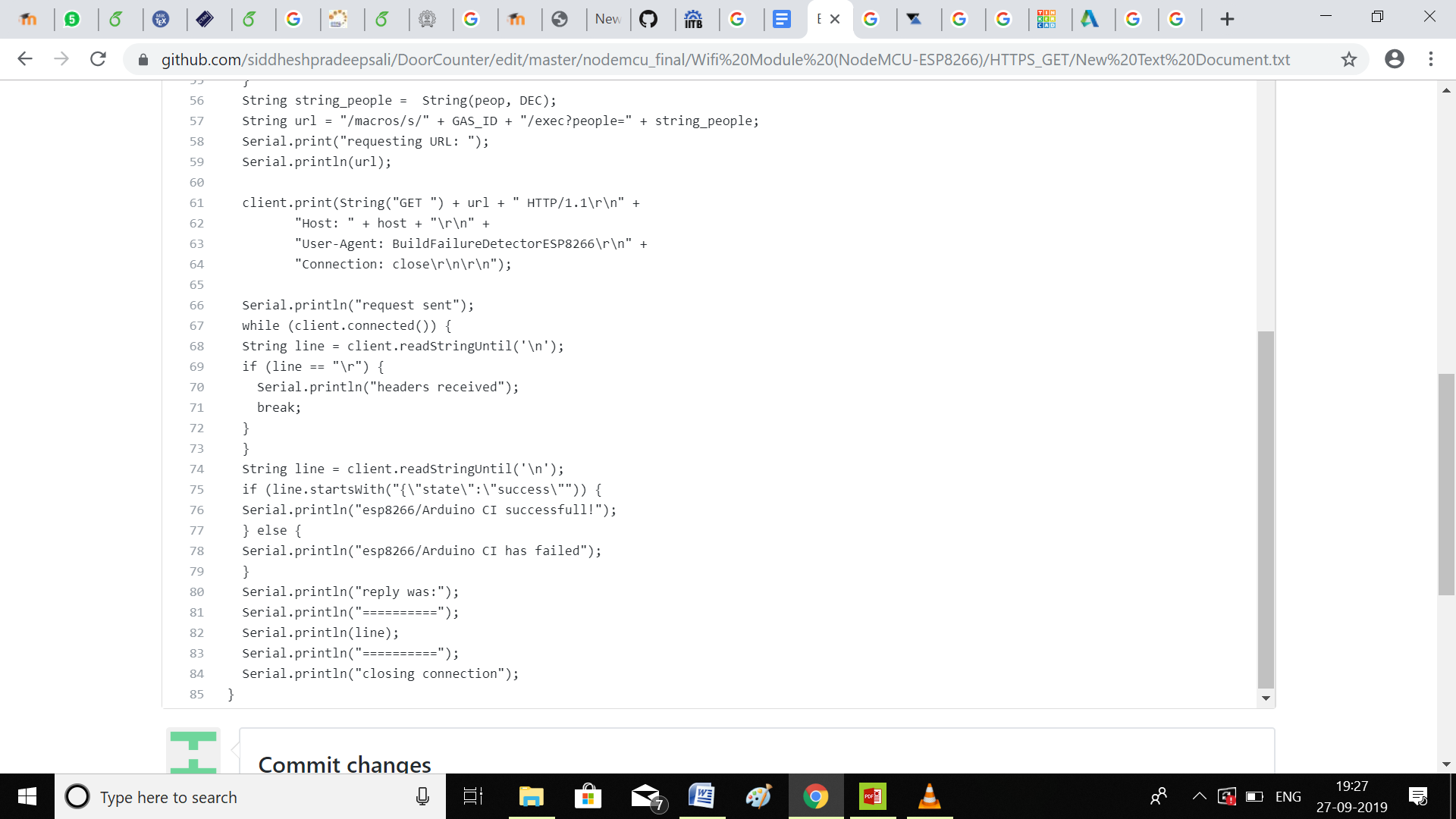
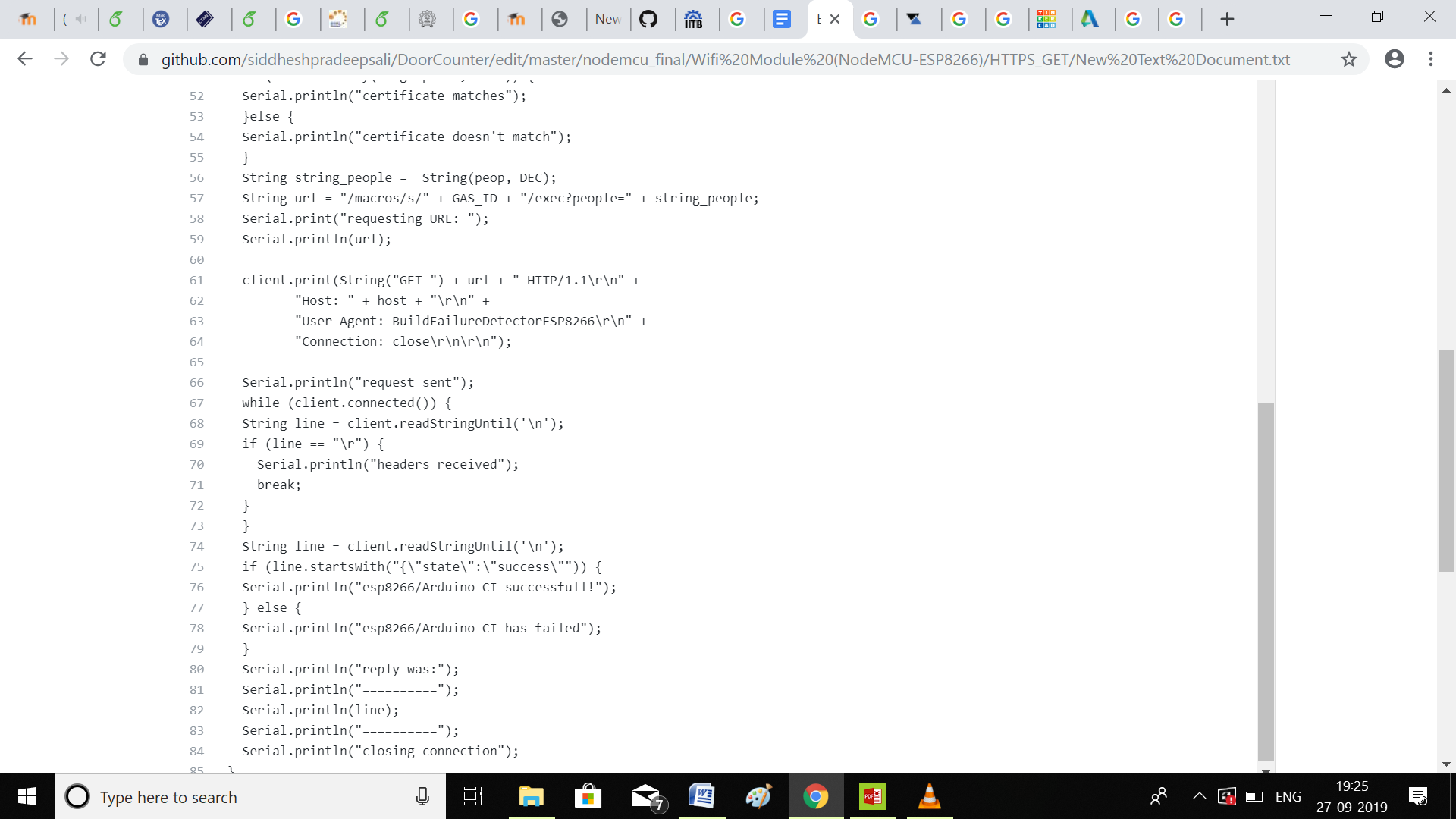






**CODE USED FOR MCU NODE:**

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**ADDITIONAL FEATURES ADDED TO THE DESCRIPTION:**

* We have made the design to for a bi-directional visitor counter and hence it counts people entering as well as the people who are leaving the room.
* Along with the LCD Display we have added a Wi-Fi module using Node MCU which uploads the count on adafruit.io which can be used by a user who is far away from the door (or maybe even the room) to check the count of people without having to reach the door to have a look at the Display.

**IMPROVEMENTS THAT CAN BE MADE IN THE PROJECT:**

* The sensitivity of the project can be increased significantly if instead of ultrasonic sensors, long-range IR sensors are used (which are too expensive for this project) or a camera is used to implement object detection.
* Alarm can be added to the project to detect human activity at unusual hours.