Real Time Parking View

NAME-SHASHANK

TEAM-THUNDERBOLT

Components

-> LCD SCREEN

-> ARDUINO UNO

-> PIR SENSOR

-> ULTRASONIC DISTANCE SENSOR

-> BREADBOARD

-> JUMPER WIRES(MALE TO MALE & MALE TO FEMALE)

-> BUZZER

-> SUNBOARD

-> BATTERY

Execution of project

-> LET'S ASSUME THAT THERE ARE NUMBER OF SLOTS IN A PARKING AREA AND THE DRIVER DON'T KNOW WHICH SLOT IS EMPTY.

-> EACH SLOT IS GIVEN A UNIQUE NUMBER.

-> LET'S ASSUME THAT EACH AND EVERY SLOT IS OF SAME WIDTH.

-> WITH THE HELP OF THIS PROPERTY, I HAVE USED ULTRASONIC DISTANCE SENSOR.

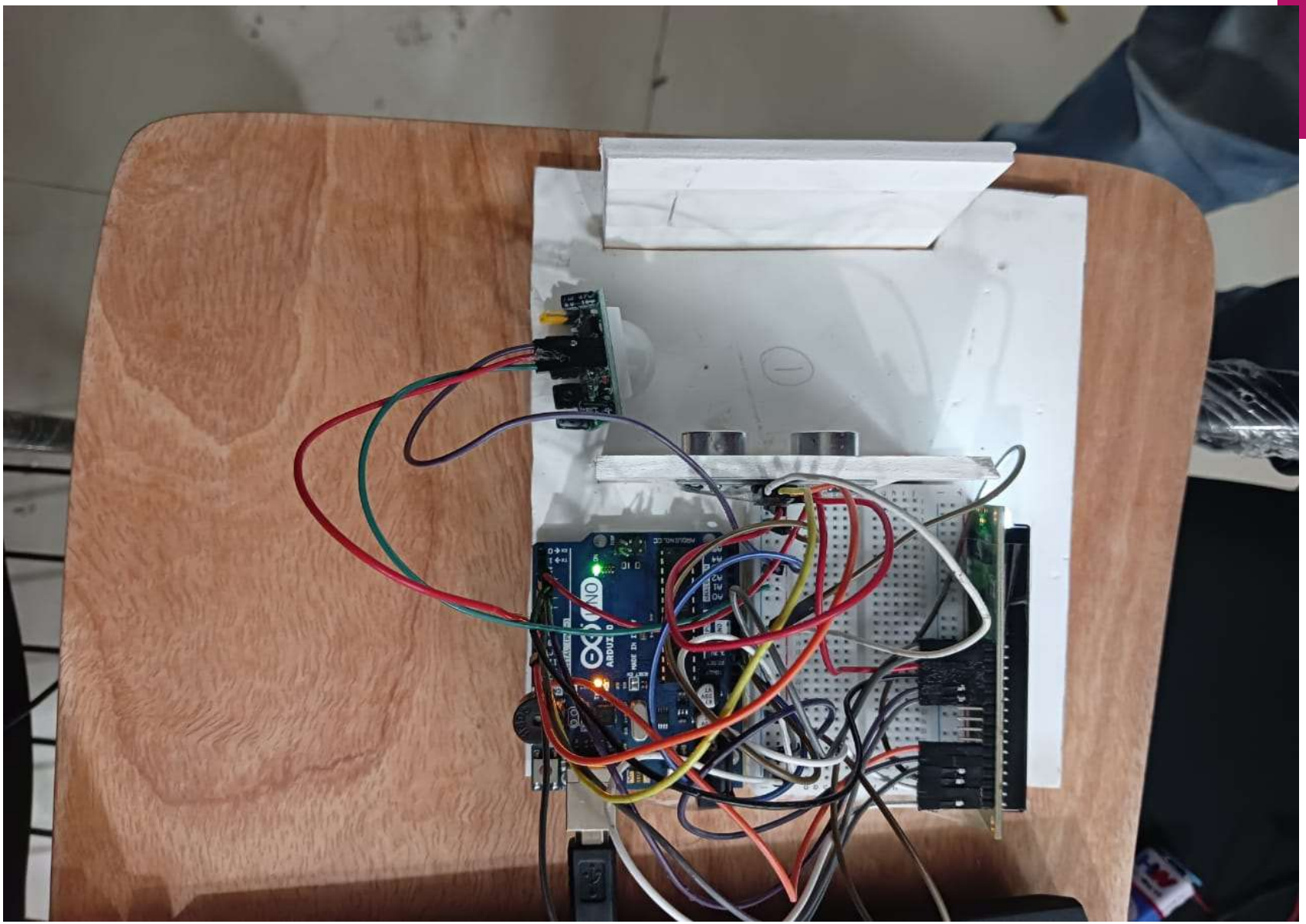
-> INSTEAD ANY OBSTACLE IS THERE BETWEEN THE WALLS OF THE PARKING SLOT, THE READING OF THE ULTRASONIC DISTANCE SHOULD NOT CHANGE.

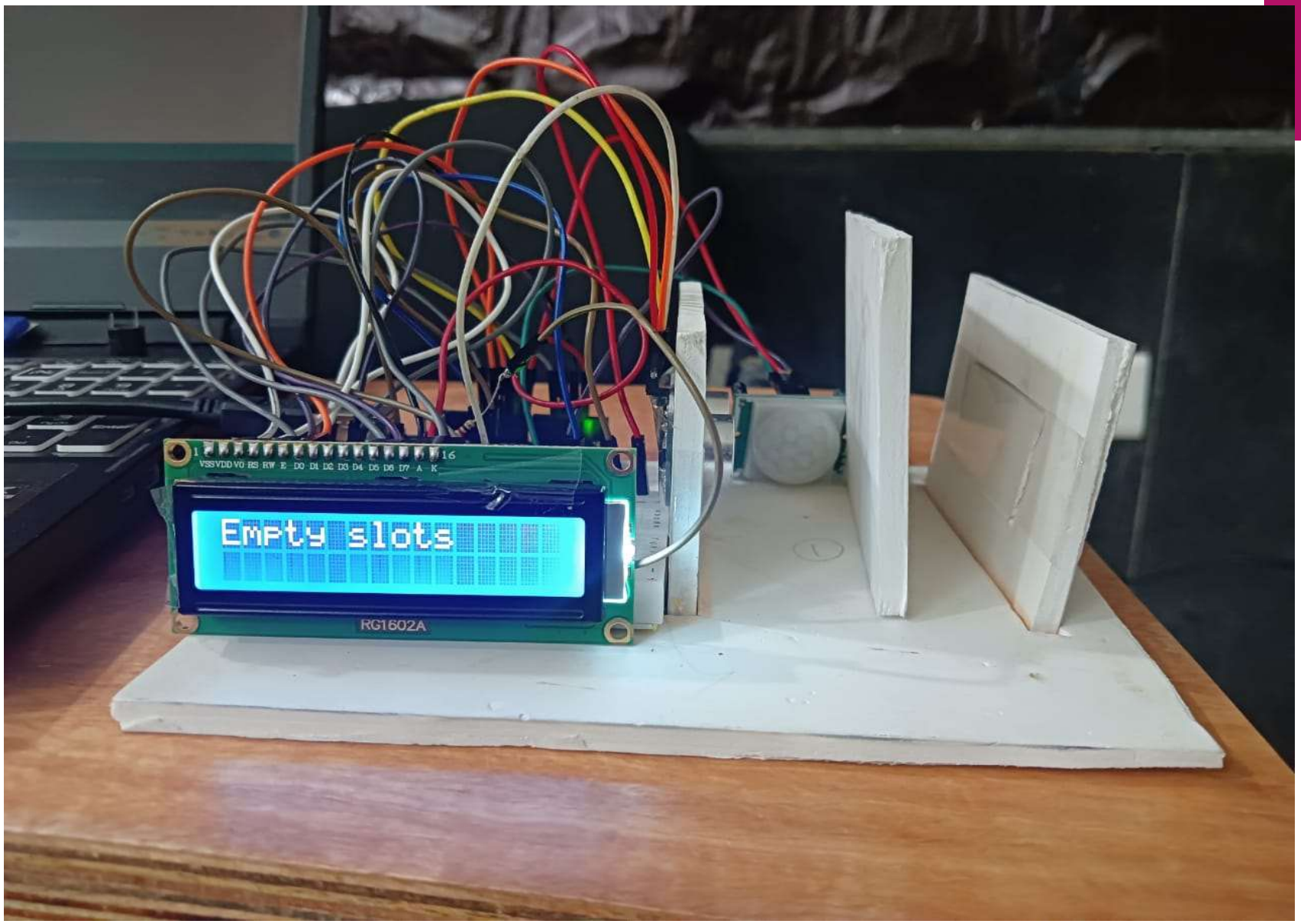
-> IF THE READING OF THE UKTRASONIC DISTANCE DECREASE IT MEANS THAT THERE IS AN OBSTACLE BETWEEN THE WALLS.

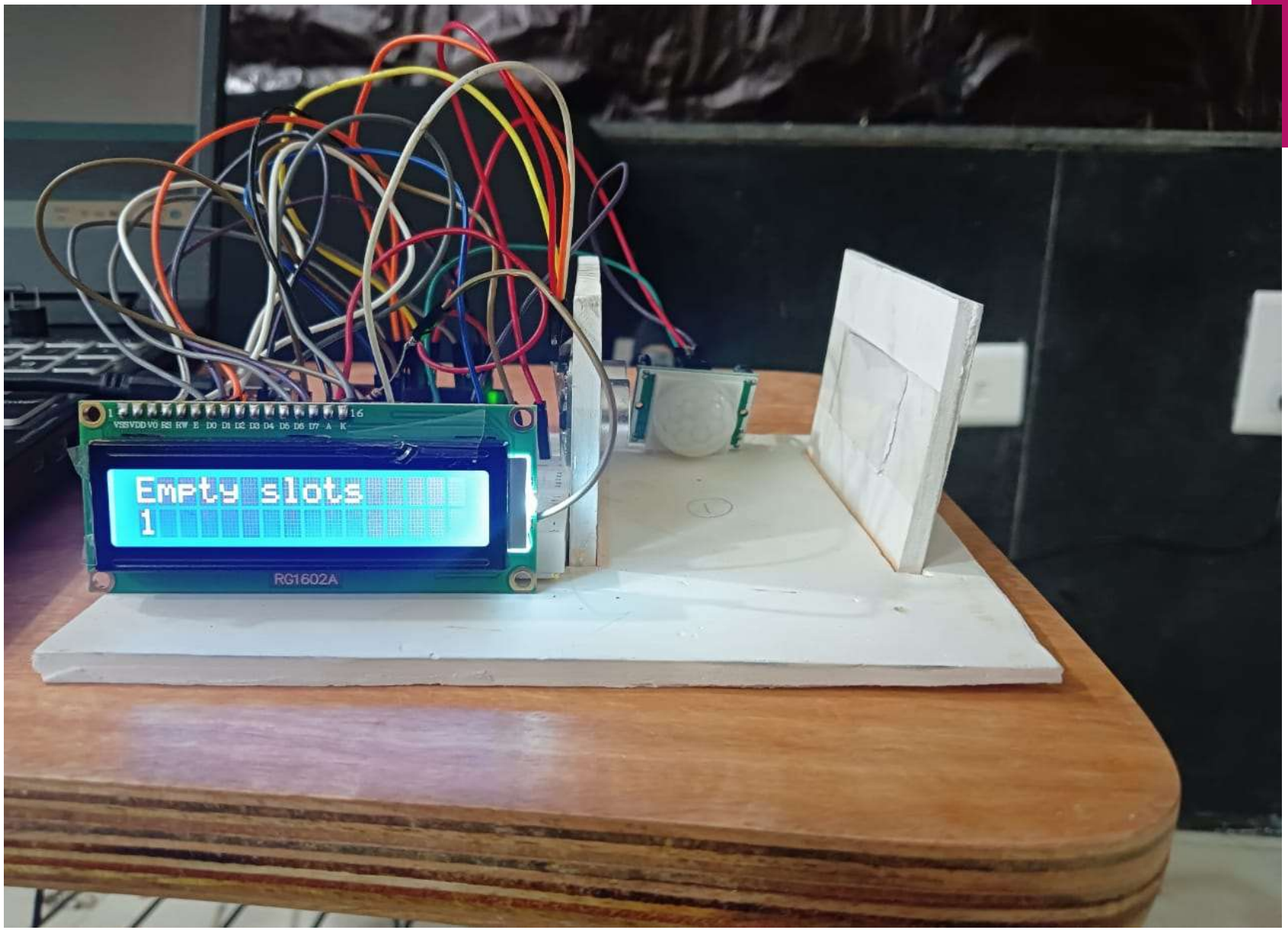
-> IF THERE IS A VEHICLE BETWEEN THE WALLS, THEN THE NUMBER OF THAT PARTICULAR SLOT WILL BE VISIBLE ON THE LCD SCREEN.

-> WITH THE HELP OF THAT THE DRIVER WILL BE ABLE TO KNOW WHICH SLOT IS EMPTY AND PARK HIS CAR IN THAT SLOT.

- IF THERE COMES A PERSON BETWEEN THE WALLS THEN THERE IS PIR SENSOR TO DETECT IR.
- IF THE READING OF THE SENSOR CHANGES THEN THERE IS A DELAY OF 1 MINUTE .
- AFTER THAT THE PIR SENSOR WILL SENSE WHETHER THERE IS A MOVING PERSON OR NOT.
- IF IT IS ,THENA BUZZER WILL BE RAISED.
- OTHERWISE IT WILL SHOW ON THE LCD SCREEN THE NUMBER OF THE EMPTY SLOT IN WHICH VEHICLE CAN BE PARKED.
- IN THIS WAY WE CAN DISTINGUISH BETWEEN A LIVING OBJECT AND VEHICLE .




Empty slots
RG1602A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RG1602A