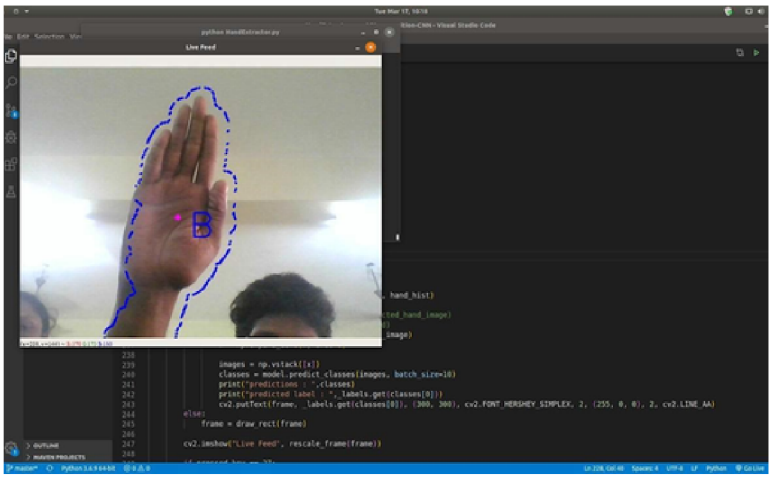
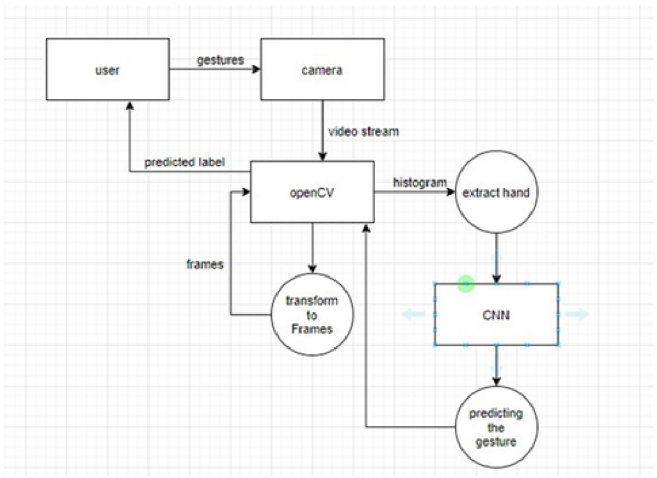
SAMRIDHI SINGH

FINAL YEAR STUDENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

samridhisingh116@gmail.com
www.linkedin.com/in/samridhi116
+91 62079 44756

INDIAN SIGN LANGUAGE TRANSLATOR - HORIZON





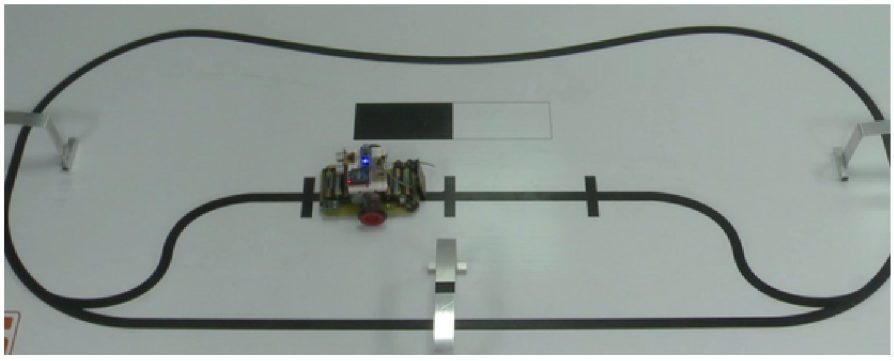
What?

A group project in which we made a translator for sign language to speech and vice versa in real time (specifically for ISL-Indian Sign Language).

Tech Used:

- Python
- OpenCV
- Image Processing
- Neural Networks

BUGGY PROJECT



What?

Engineered a bot which autonomously followed a specified colour strip, avoided and counted obstacles and was capable of making different shapes and patterns by movement. Executed on the Nvis3302ARD RoboCar.

Tech Used:

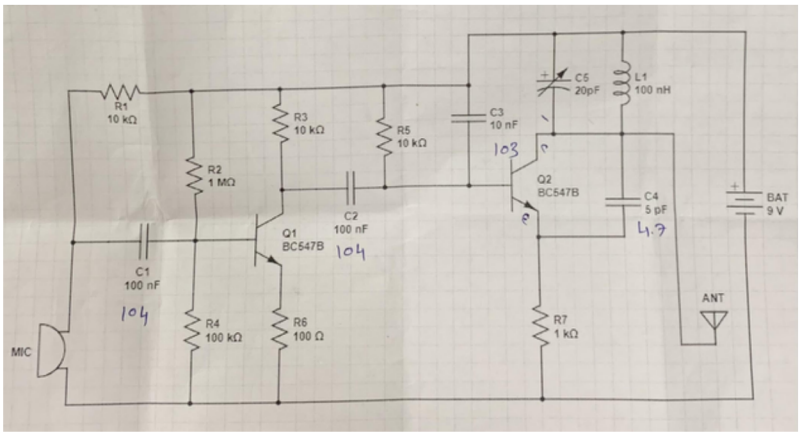
- Arduino
- Eagle

SAMRIDHI SINGH

FINAL YEAR STUDENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

samridhisingh116@gmail.com
www.linkedin.com/in/samridhi116
+91 62079 44756

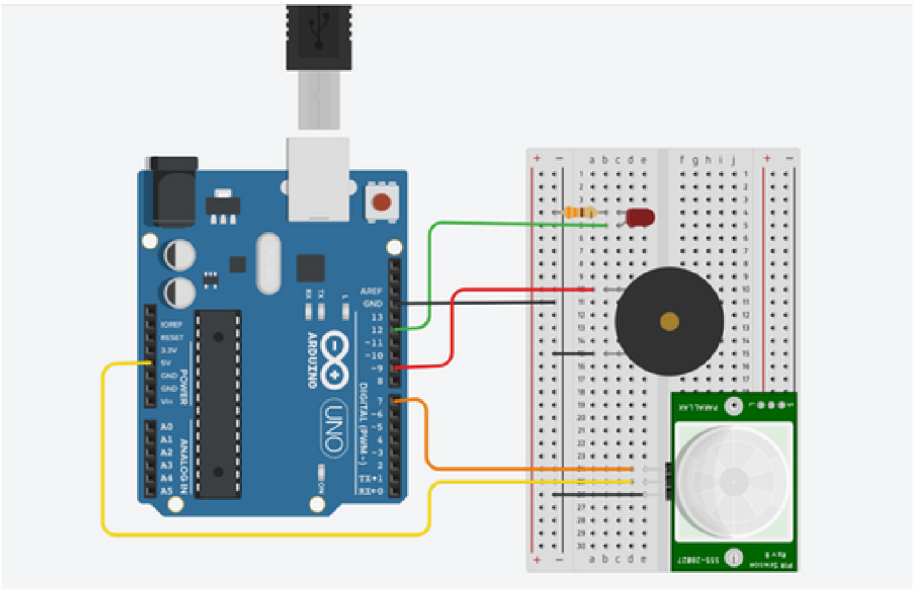
FM RADIO TRANSMITTER



What?

A group project in which we designed an FM transmitter circuit and soldered it onto a board. It took an audio signal as input and gave FM modulated waves to the antenna as an output to be transmitted. It produced a signal in the VHF band of 88MHz to 108MHz.

HOME BARGE ALERT SYSTEM



```
void setup()
{
  pinMode(12, OUTPUT);
  pinMode(9, OUTPUT);
  pinMode(7, INPUT);
}

void loop()
{
  int motion=digitalRead(7);
  if(motion==HIGH)
  {
    digitalWrite(12,HIGH);
    delay(300);
    tone(9,300);
    delay(300);
    digitalWrite(12, LOW);
    delay(300);
    noTone(9);
    delay(300);
  }
  else
  {
    digitalWrite(12,LOW);
    delay(300);
    noTone(9);
    delay(300);
  }
}
```

What?

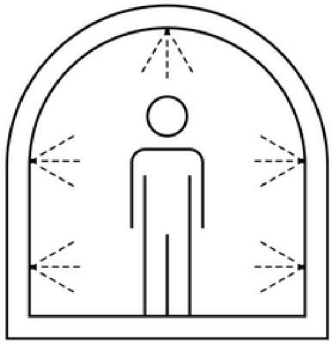
Built an intruder alarm using Arduino, PIR sensor (motion detector), LED and Buzzer. A home barge alert system is an intruder alarm or an anti-theft alarm. When motion is detected by PIR sensor it fetches the detection to arduino and this alerts the system using the buzzer and blinking the LED.

SAMRIDHI SINGH

FINAL YEAR STUDENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

samridhisingh116@gmail.com
www.linkedin.com/in/samridhi116
+91 62079 44756

C3: COVID COMBAT CONTRIVANCE



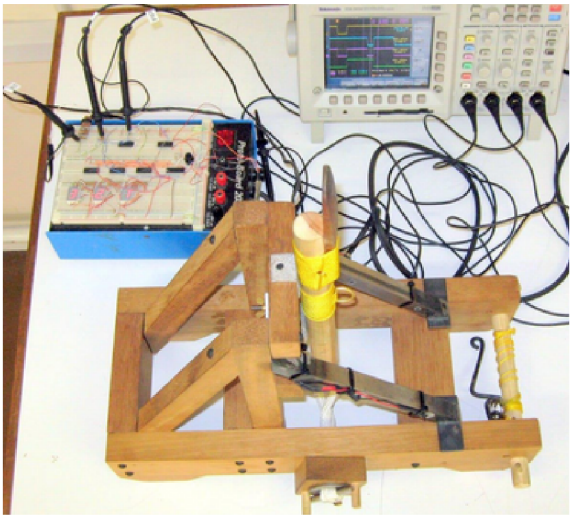
DISINFECTION TUNNEL

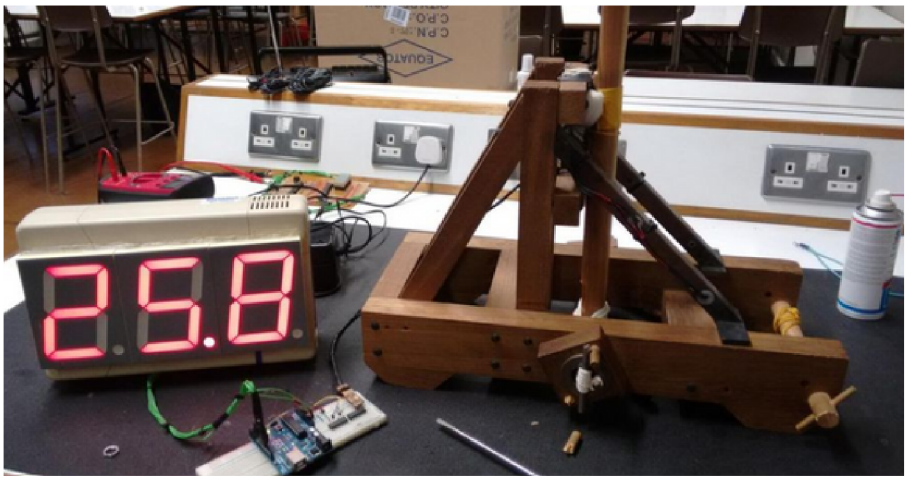
TELEPRESENCE ROBOT

What?

A group project in which we proposed the idea of building a set of machines (a tunnel, dispensers, telepresence robots carrying manipulators) which could be deployed at public places likes hospitals, metro stations, airports, etc. to prevent covid infected people from entering the place and hence limit interaction and help curb the spread of the virus.

MANGONEL





What?

A college group project which was concerned with the design, construction and analysis of a mangonel. Our problem statement was to construct a circuit to record and display the time taken by the throwing arm on the mangonel to pass between the sensors mounted on the chassis and to study the trajectory and distance of a "missile", in our case, a ball. We developed a micro electronic system to allow the angular velocity of the throwing arm to be determined.