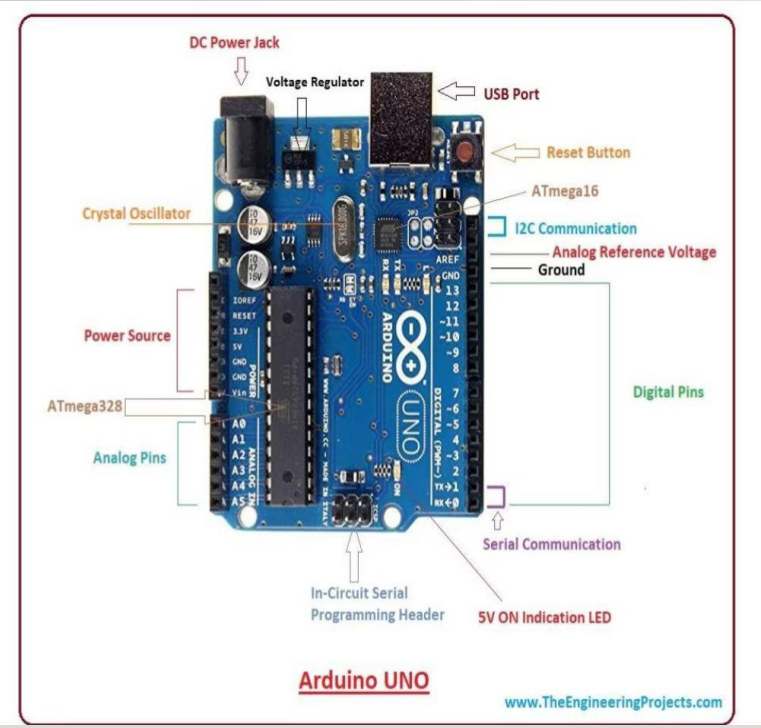
SMART STICK FOR BLIND

INTRODUCTION

- Presently, blind people use stick as a tool for directing them while they are walking
- Here we develop a tool for blind people which can serve as a blind stick being more efficient and helpful than the conventional one.

COMPONENTS

ARDUINO UNO



Ultrasonic Sensor

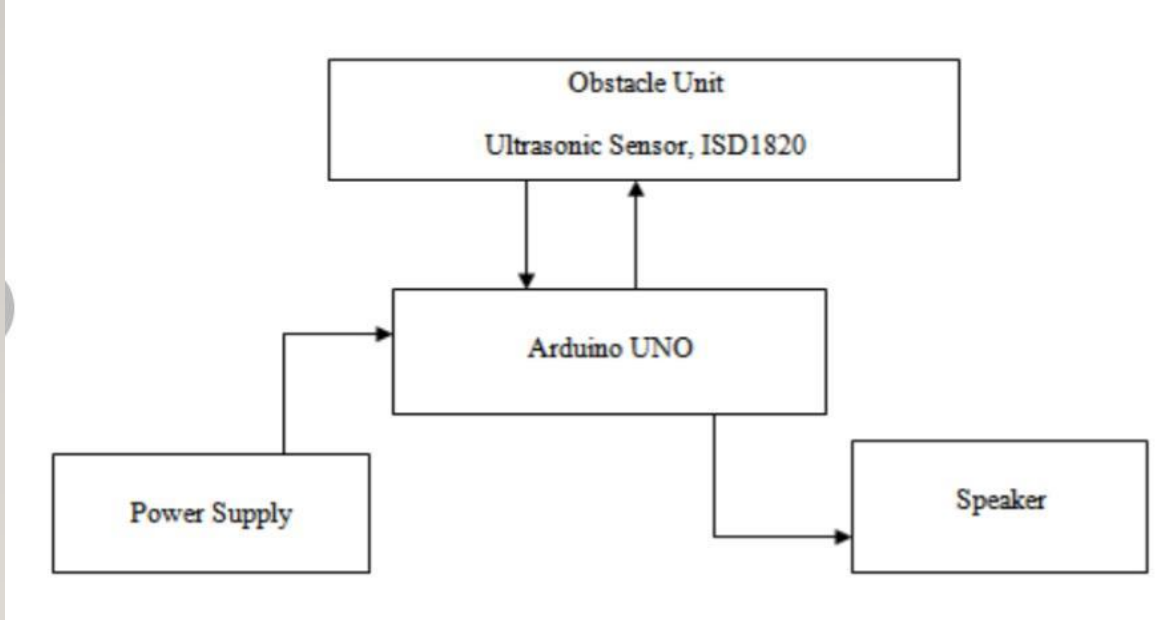
Buzzer

9V Battery

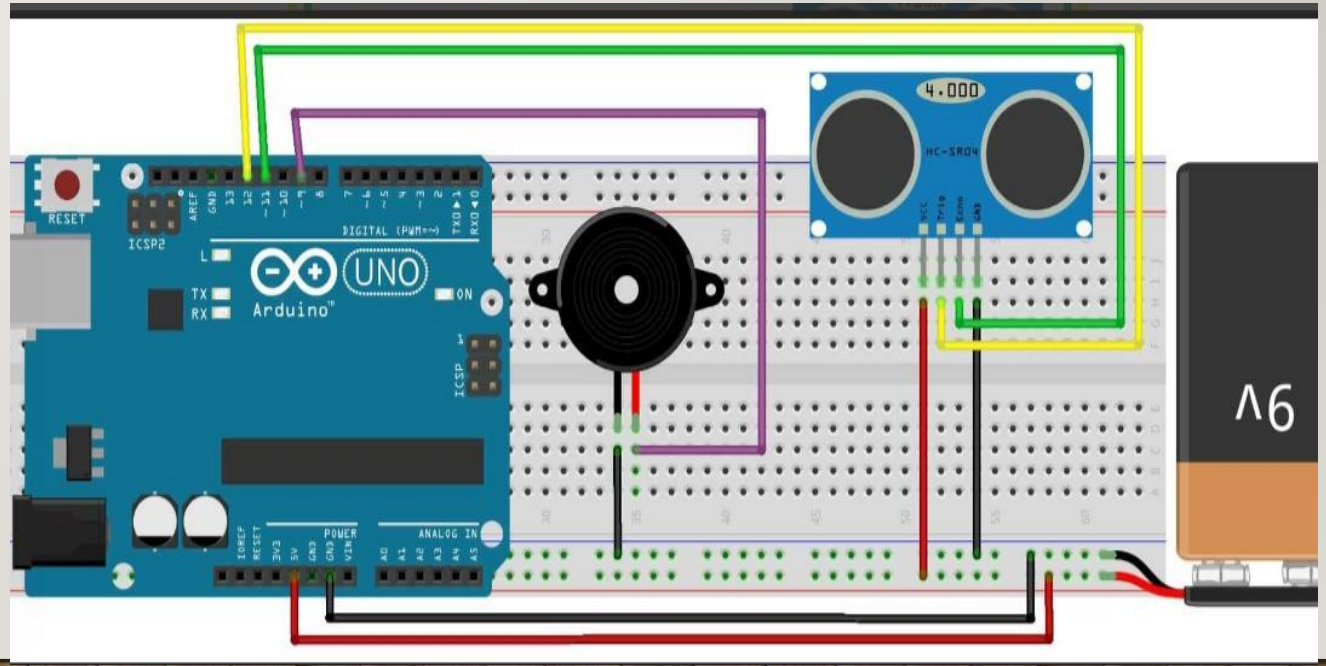
Jumpers

BLOCK DIAGRAM AND CIRCUIT CONNECTION

- Block Diagram.



Circuit Connection



ARDUINO CODE

```
const int trigPin=9;
Const int echoPin=10;
Const int buzzer=11;
Long duration;
Int distance;
Int safetyDistance;
Void setup(){
    pinMode(trigPin,OUTPUT);.
    pinMode(echoPin,INPUT);
    pinMode(buzzer,OUTPUT);
    Serial.begin(9600);
}.
```

```
void loop(){
     digitalWrite(trigPin,LOW).
     delayMicroseconds(2);
     digitalWrite(trigPin,HIGH).
    delayMicroseconds(10);
     digitalWrite(trigPin,LOW);
     duration=pulse in(echoPin,LOW)
    Distance=duration*0.034/2
   safetyDistance=distance;
   if(safetyDistance<=20){
        digitalWrite(buzzer,HIGH)
       }
```

```
 else{
     dig italWrite(buzzer,LOW);
 }
Ser ial.print("Distance");
 Serial.print(distance);
```

VIDEO DEMO

CONCLUSION

- Using this blind stick, a person can walk more confidently. This stick detects the object in front of the person and give response to the user either by vibrating or through command. So, the person can walk without any fear.
- With the help of technology in upcoming days we can able to design a device to detects holes in roads, upstairs, downstairs and some other.


THANK
YOU