**Smart Defence System**

**Components:**

ir sensor

rgb

buzzer

node mcu

wire

**Code:**

#include <NewPing.h>

#define TRIGGER\_PIN 12 // Arduino pin tied to trigger pin on the ultrasonic sensor.

#define ECHO\_PIN 11 // Arduino pin tied to echo pin on the ultrasonic sensor.

NewPing sonar(TRIGGER\_PIN, ECHO\_PIN, MAX\_DISTANCE); // NewPing setup of pins and maximum distance.

void setup() {

Serial.begin(115200); // Open serial monitor at 115200 baud to see ping results.

pinMode(8,OUTPUT);

pinMode(7,OUTPUT);

pinMode(6,OUTPUT);

}

void loop() {

delay(50);

Serial.print("Ping: ");

Serial.print(sonar.ping\_cm()); // Send ping, get distance in cm and print result (0 = outside set distance range)

Serial.println("cm");

if(sonar.ping\_cm() >0 && sonar.ping\_cm() <=10)

{

digitalWrite(8,HIGH);

digitalWrite(7,LOW);

digitalWrite(6,LOW);

}

else if(sonar.ping\_cm() >10 && sonar.ping\_cm() <=50)

{

digitalWrite(7,HIGH);

digitalWrite(8,LOW);

digitalWrite(6,LOW);

}

else if(sonar.ping\_cm() >50 && sonar.ping\_cm() <=100)

{

digitalWrite(6,HIGH);

digitalWrite(7,LOW);

digitalWrite(8,LOW);

}

}