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#define trigger 18
#define echo 19

#define LED 5
#define BlinkingLED 4

#define POT A0

#define LED5Ft 4
#define LED4Ft 5
#define LED3Ft 6
#define LED2Ft 7
#define LED1Ft 8

float time=0,distance=0;

void setup()
{
  Serial.begin(9600);

  pinMode(trigger,OUTPUT);
  pinMode(echo,INPUT);

  pinMode(POT, INPUT);

  pinMode(LED5Ft, OUTPUT);
  pinMode(LED4Ft, OUTPUT);
  pinMode(LED3Ft, OUTPUT);
  pinMode(LED2Ft, OUTPUT);
  pinMode(LED1Ft, OUTPUT);

  Serial.print(" Ultra Sonic ");
  Serial.print(" Distance Meter ");
  delay(8000);
}

void loop()
{
  digitalWrite(trigger,LOW);
  delayMicroseconds(2);
  digitalWrite(trigger,HIGH);
  delayMicroseconds(10);
  digitalWrite(trigger,LOW);
  delayMicroseconds(2);
  time=pulseIn(echo,HIGH);
  distance=time*340/20000;
  Serial.print("Distance:");
  Serial.print(distance);
  Serial.println("cm");
```

```
Serial.print("Distance:");
Serial.print(distance/30);
Serial.println("ft");
delay(100);

int setDistance = map(analogRead(POT), 0, 1023, 3, 390);

int blinkGapDistance = 10;
int gapDistance = 30;

if(distance < setDistance + blinkGapDistance +gapDistance*5)
{
  digitalWrite(LED5Ft, LOW);
  digitalWrite(LED4Ft, LOW);
  digitalWrite(LED3Ft, LOW);
  digitalWrite(LED2Ft, LOW);
  digitalWrite(LED1Ft, LOW);
}

if(distance < setDistance + blinkGapDistance +gapDistance*4)
{
  digitalWrite(LED5Ft, HIGH);
  digitalWrite(LED4Ft, LOW);
  digitalWrite(LED3Ft, LOW);
  digitalWrite(LED2Ft, LOW);
  digitalWrite(LED1Ft, LOW);
}

if(distance < setDistance + blinkGapDistance +gapDistance*3)
{
  digitalWrite(LED5Ft, HIGH);
  digitalWrite(LED4Ft, HIGH);
  digitalWrite(LED3Ft, LOW);
  digitalWrite(LED2Ft, LOW);
  digitalWrite(LED1Ft, LOW);
}

if(distance < setDistance + blinkGapDistance +gapDistance*2)
{
  digitalWrite(LED5Ft, HIGH);
  digitalWrite(LED4Ft, HIGH);
  digitalWrite(LED3Ft, HIGH);
  digitalWrite(LED2Ft, LOW);
  digitalWrite(LED1Ft, LOW);
}

if(distance < setDistance + blinkGapDistance +gapDistance)
{
  digitalWrite(LED5Ft, HIGH);
  digitalWrite(LED4Ft, HIGH);
  digitalWrite(LED3Ft, HIGH);
  digitalWrite(LED2Ft, HIGH);
}
```

```
digitalWrite(LED1Ft, LOW);
}

if(distance < setDistance + blinkGapDistance)
{
digitalWrite(LED5Ft, HIGH);
digitalWrite(LED4Ft, HIGH);
digitalWrite(LED3Ft, HIGH);
digitalWrite(LED2Ft, HIGH);
digitalWrite(LED1Ft, HIGH);
}

if(distance < setDistance)
{
for(int i = 0; i < 50; i++)
{
digitalWrite(LED5Ft, HIGH);
digitalWrite(LED4Ft, HIGH);
digitalWrite(LED3Ft, HIGH);
digitalWrite(LED2Ft, HIGH);
digitalWrite(LED1Ft, HIGH);
delay(50);
digitalWrite(LED5Ft, LOW);
digitalWrite(LED4Ft, LOW);
digitalWrite(LED3Ft, LOW);
digitalWrite(LED2Ft, LOW);
digitalWrite(LED1Ft, LOW);
delay(50);
}

do
{
digitalWrite(trigger,LOW);
delayMicroseconds(2);
digitalWrite(trigger,HIGH);
delayMicroseconds(10);
digitalWrite(trigger,LOW);
delayMicroseconds(2);
time=pulseIn(echo,HIGH);
distance=time*340/20000;
}
while(distance < 150);
}
}
```