



Schematic:

```

#define Trig 9
#define Echo 8

void setup()
{
    Serial.begin(9600);
    Drv_LED_init();
    Drv_Ultrasonic_init();
}

void loop()
{
    long distance = Drv_Ultrasonic_Read();
    Drv_LED(distance / 5);
    Serial.print("Distance = ");
    Serial.print(distance);
    Serial.println(" [cm]");
}

void Drv_LED_init()
{
    for(int i = 2; i <= 7; i++)
    {
        pinMode(i, OUTPUT);
        digitalWrite(i, LOW);
    }
}

void Drv_LED(int val)
{
    for(int i = 2; i <= 7; i++)
    {
        if(i <= val)
        {
            digitalWrite(i, LOW);
        }
        else
        {
            digitalWrite(i, HIGH);
        }
    }
}

void Drv_Ultrasonic_init()
{
    pinMode(Trig, OUTPUT);
    digitalWrite(Trig, LOW);
    pinMode(Echo, INPUT);
}

long Drv_Ultrasonic_Read()
{
    digitalWrite(Trig, HIGH);
    delayMicroseconds(10);
    digitalWrite(Trig, LOW);

    long distance = pulseIn(Echo, HIGH);

    return (distance * 0.01715);
}

```