

IEEE ÇUKUROVA STUDENT BRANCH

# TEMEL ELEKTRONİK ATÖLYESİ VE ARDUİNO EĞİTİMİ

POWER & ENERGY SOCIETY



**Çukurova University**  
IEEE Student Branch

Ders 4

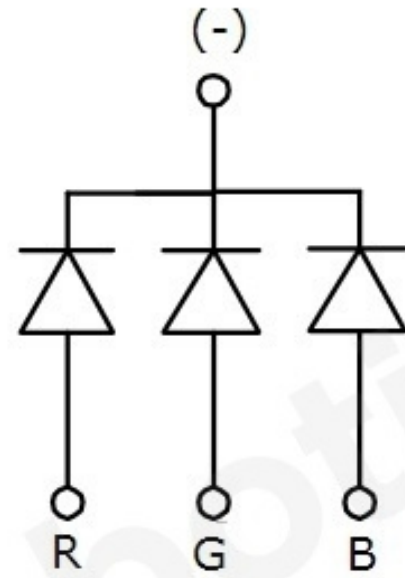
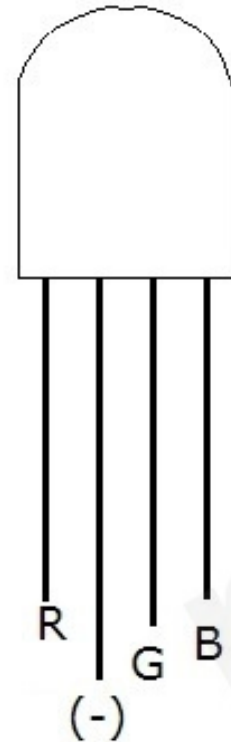
- RGB led hakkında bilgi sahibi olmak.
- Birden fazla analog giriş almak ve bu verileri kullanmak.
- Map fonksiyonunu öğrenmek ve kullanmak.
- Mesafe sensörü hakkında bilgi almak ve çalışma mantığını kavramak.

# RGB LED

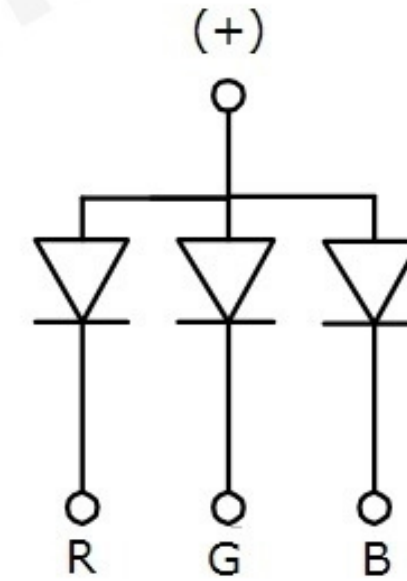
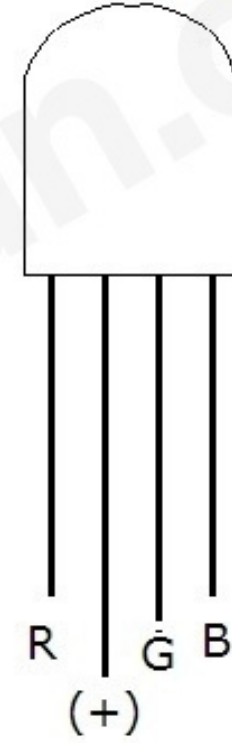
## RGB LED

RGB (Red-Green-Blue) LED içerisinde kırmızı, yeşil ve mavi renkleri barındıran bir LED çeşididir.

Ortak  
Katot (-)

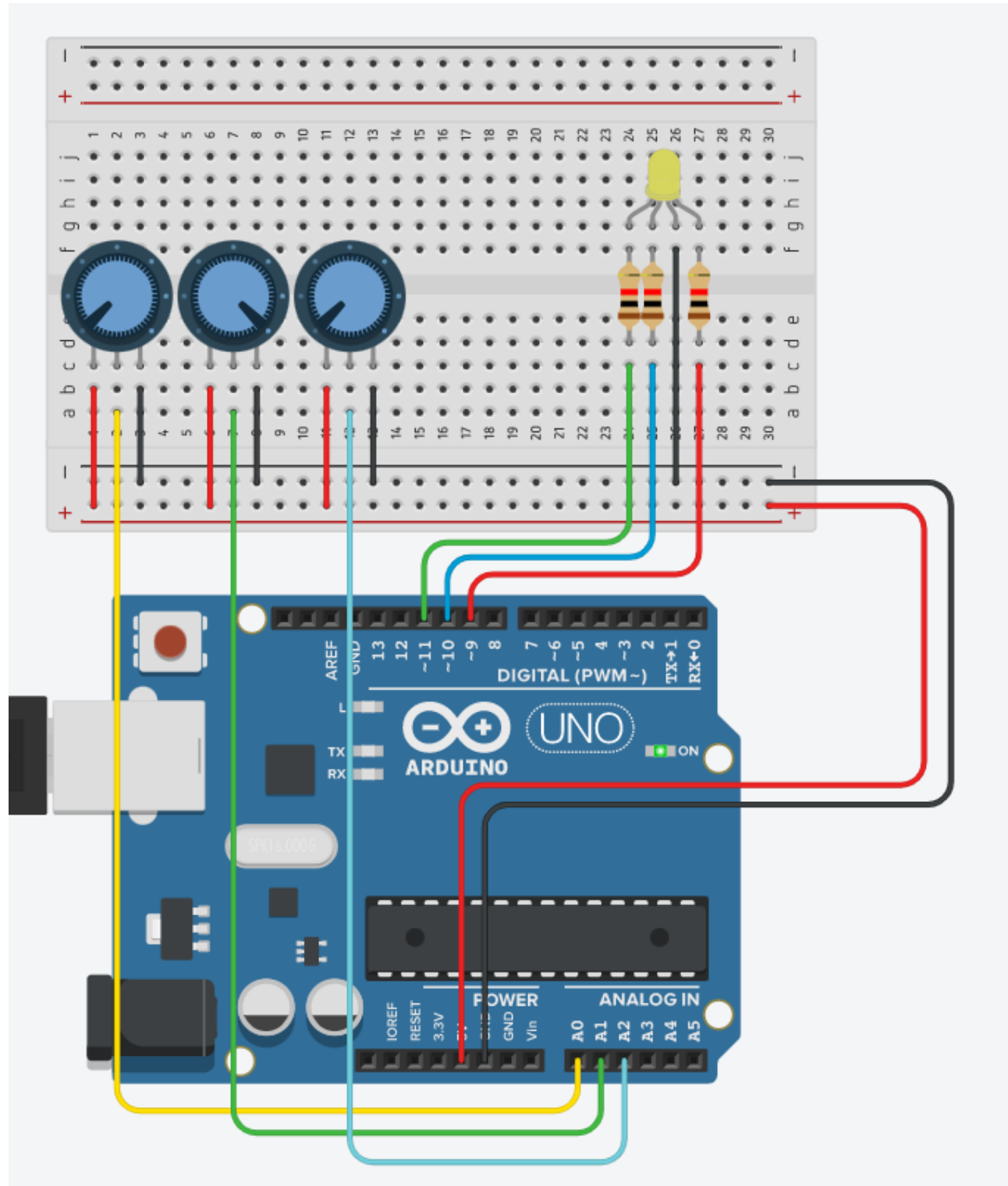


Ortak  
Anot (+)



MAKER  
robotistan.com

# DENEY 1



## deney1

```
#define red 9
#define blue 10
#define green 11
#define pot1 A0
#define pot2 A1
#define pot3 A2

void setup()
{
    pinMode(red, OUTPUT);
    pinMode(blue, OUTPUT);
    pinMode(green, OUTPUT);
}

void loop()
{
    int red_isik = analogRead(pot1);
    int blue_isik = analogRead(pot2);
    int green_isik = analogRead(pot3);

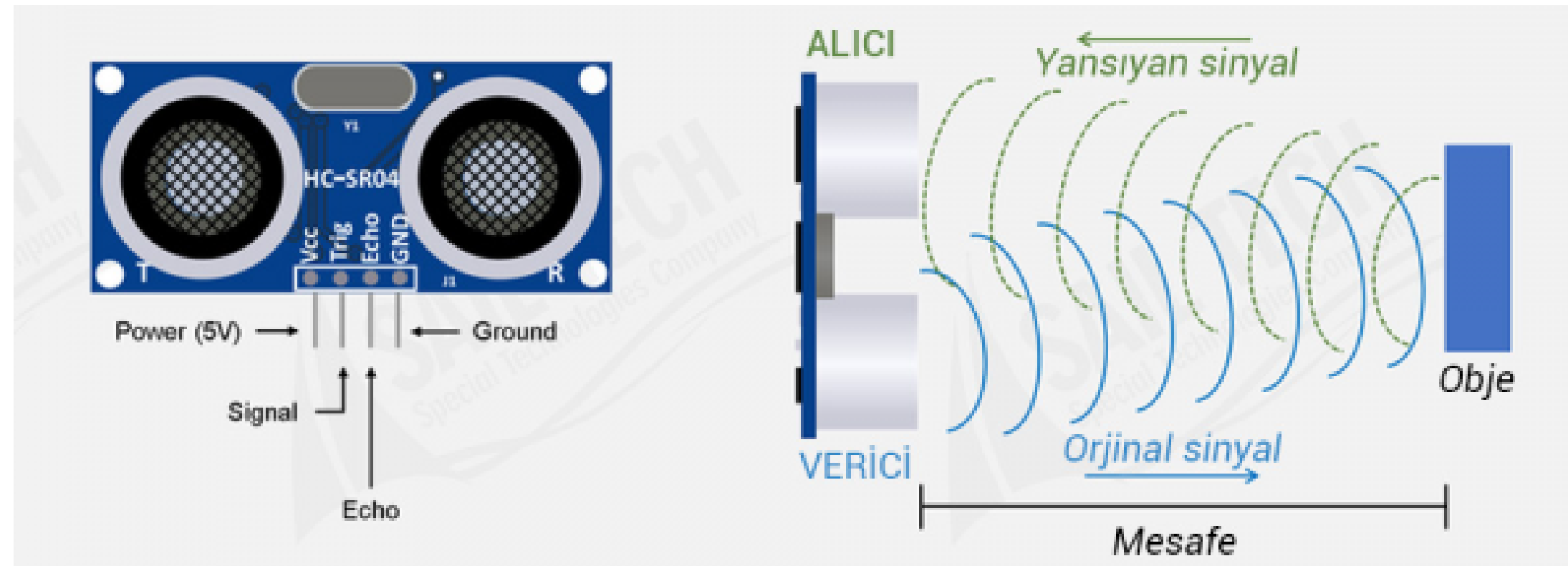
    red_isik = map(red_isik, 0, 1023, 0, 255);
    blue_isik = map(blue_isik, 0, 1023, 0, 255);
    green_isik = map(green_isik, 0, 1023, 0, 255);

    analogWrite(red, red_isik);
    analogWrite(blue, blue_isik);
    analogWrite(green, green_isik);
}
```

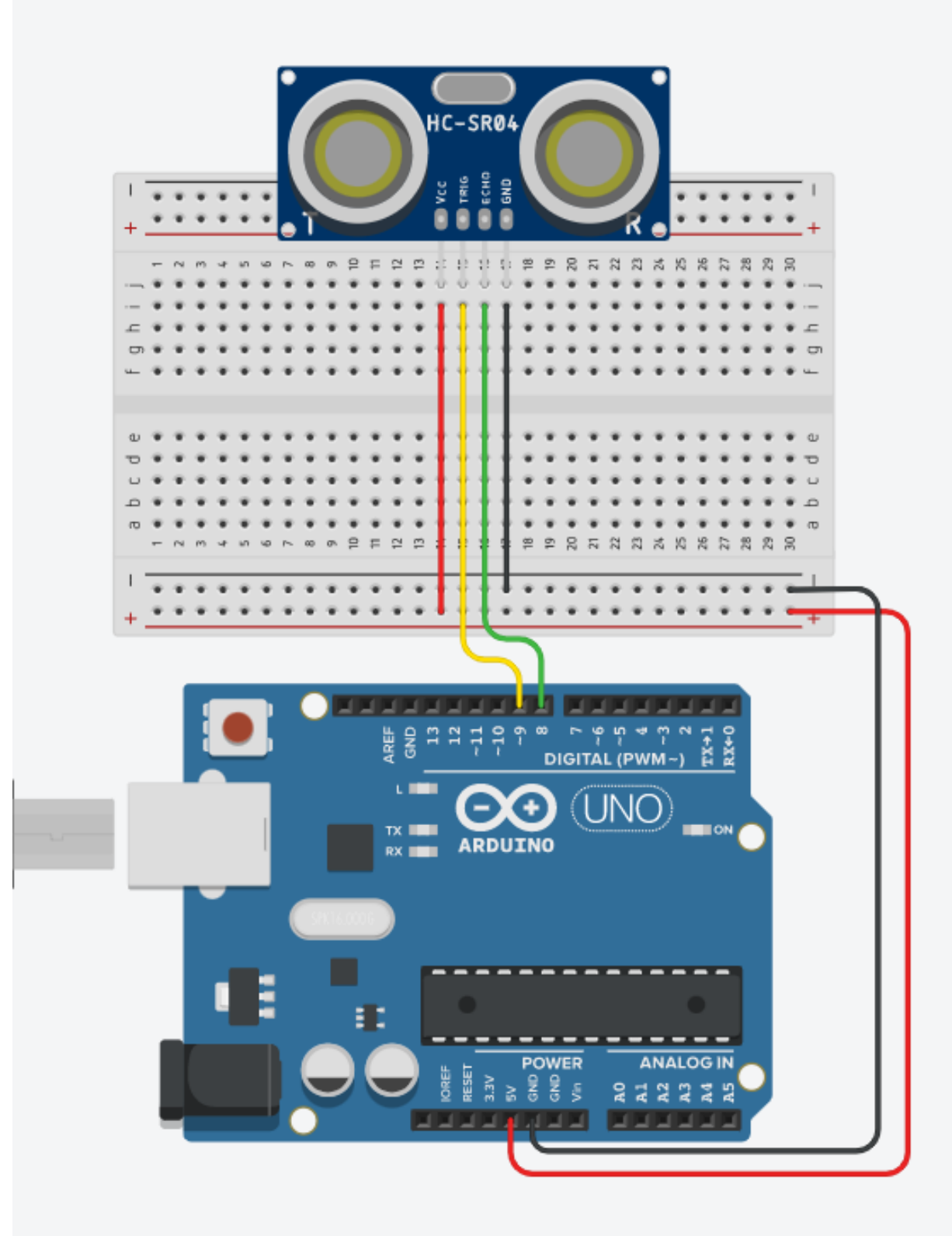
# MESAFE SENSÖRÜ

## HC-SR04

HC-SR04 Ultrasonik Mesafe Sensörü, 2 ile 400cm aralığındaki mesafeleri ölçebilen ultrasonik mesafe sensörüdür.



# DENEY 2



## deney2

```
#define trigPin 9
#define echoPin 8

float mesafe;
float sure;

void setup()
{
    pinMode(trigPin, OUTPUT);
    pinMode(echoPin, INPUT);
    Serial.begin(9600);
}

void loop()
{
    digitalWrite(9, HIGH);
    delayMicroseconds(1000);
    digitalWrite(9, LOW);
    sure = pulseIn(8, HIGH);

    mesafe = (sure/2)/29.1;
    Serial.print("Uzaklik = ");
    Serial.print(mesafe);
    Serial.println(" cm");
    Serial.println("-----");
}
```

KAPANIŞ

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# DİNLEDİĞİNİZ VE KATILDIĞINIZ İÇİN TEŞEKKÜLER

BİR SONRAKİ DERSTE GÖRÜŞMEK ÜZERE



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SK Out.