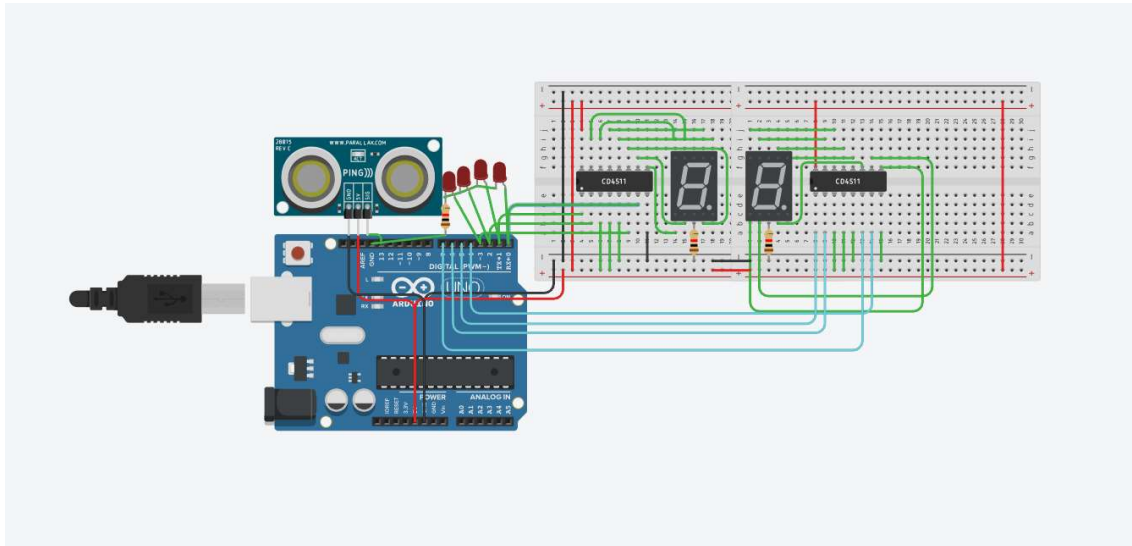


Distance Detecting

Designed an Arduino to detect the distance with US sensor and displaying with the help of 8-bit comparator;



Code:

```
long readUltrasonicDistance(int triggerPin, int echoPin)
{
  pinMode(triggerPin, OUTPUT); // Clear the trigger
  digitalWrite(triggerPin, LOW);
  delayMicroseconds(2);
  // Sets the trigger pin to HIGH state for 10 microseconds
  digitalWrite(triggerPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(triggerPin, LOW);
  pinMode(echoPin, INPUT);
  // Reads the echo pin, and returns the sound wave travel time in microseconds
  return pulseIn(echoPin, HIGH);
}

void setup()
```

```

{ for(int i=0;i<8;i++)
    pinMode(i, OUTPUT); // D0

}

void loop()
{

    int cm = 0.01723 * readUltrasonicDistance(13,13);

    int inches = (cm /2.54);Serial.print(inches);
    Serial.print(F("Hello World"));
    Serial.println(cm);
    //for(int j=0;j<99;j++)
    { //inches=j;
        if((inches%10)<7){
            if((inches%10)%2!=0)digitalWrite(4,HIGH);
            if((inches%10)%4>1)digitalWrite(5,HIGH);
            if((inches%10)%8>3)digitalWrite(6,HIGH);
        }
        else{
            if((inches%10)>8)digitalWrite(4,HIGH);
            digitalWrite(7,HIGH);
        }
        if(((inches/10)%10)<7){
            if(((inches/10)%10)%2!=0)digitalWrite(0,HIGH);
            if(((inches/10)%10)%4>1)digitalWrite(1,HIGH);
            if(((inches/10)%10)%8>3)digitalWrite(2,HIGH);
        }
        else{
            if(((inches/10)%10)>8)digitalWrite(0,HIGH);
            digitalWrite(3,HIGH);
        }
    }
}

```

```
delay(500);  
for(int i=0;i<8;i++)  
    digitalWrite(i,LOW);  
}  
}
```