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Program: 8

Program TITLE OBJECT DISTANCE MEASUREMENT

AIM: Design a system to measure the distance between objects.

Hardware Required:

- Arduino
- Ultrasonic Distance Sensor

CODE:

```
int trigPin = 4;  
int echoPin = 2;  
long duration, cm, inches;
```

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

```
void loop() {  
  digitalWrite(trigPin, LOW);  
  delayMicroseconds(5);  
  digitalWrite(trigPin, HIGH);  
  delayMicroseconds(10);  
  digitalWrite(trigPin, LOW);
```

```
duration = pulseIn(echoPin, HIGH);
```

```
cm = (duration / 2) / 29.1;
```

```
inches = (duration / 2) / 74;
```

```
Serial.print("Distance ");
```

```
Serial.print(inches);
```

```
Serial.print(" inches ");
```

```
Serial.print(cm);
```

```
Serial.print(" cm");
```

```
Serial.println();
```

```
delay(250);
```

```
}
```


CIRCUIT DIAGRAM -

