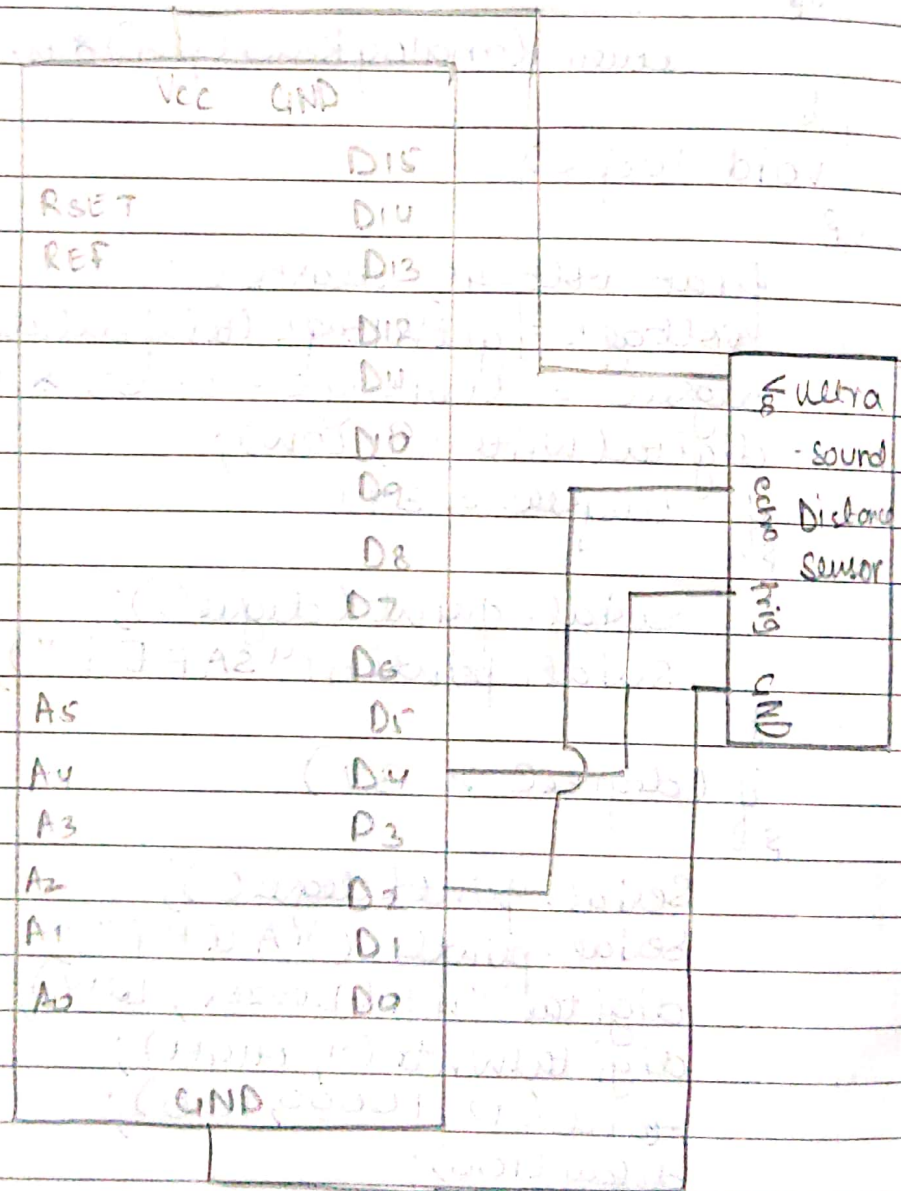PROGRAM NO : 10

PROGRAM TITLE : Object Distance Measurement

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

HARDWARE REQUIREMENTS : Arduino , Connecting wires, Ultrasonic Distance Sensor

CIRCUIT DIAGRAM :

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);
    pinMode(echoPin, INPUT);
    duration = pulseIn(echoPin, HIGH);
    cm = (duration/2)/29.1;
    inches = (duration/2)/74;
    Serial.print("Distance:");
    Serial.print(inches);
    Serial.print("in   ");
    Serial.print(cm);
    Serial.print("cm  ");
    Serial.println();
    delay(250);
}
```