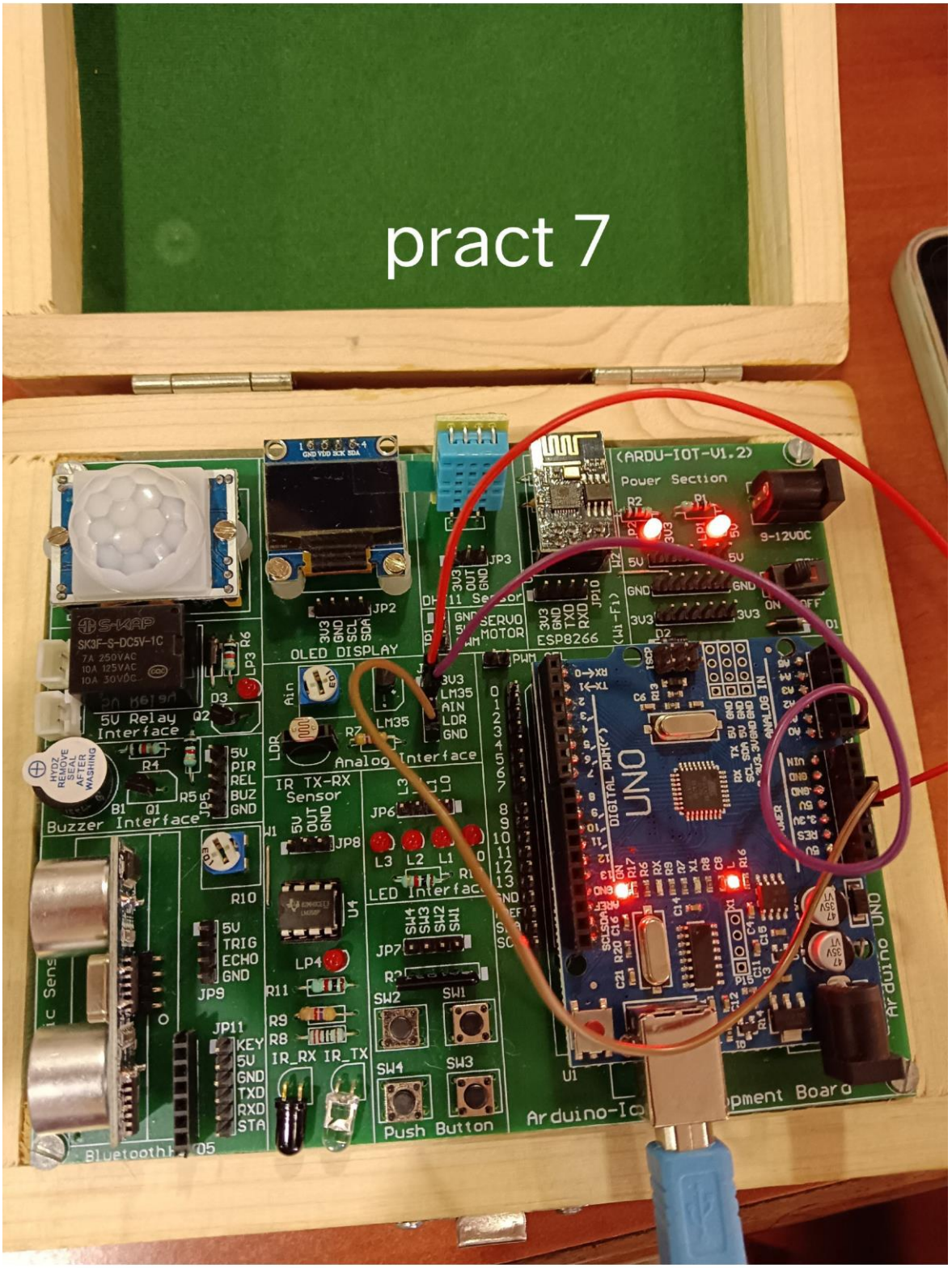
Experiment no.7

```
// Define the analog pin where the LM35 sensor is
connected const int lm35Pin = A0; void setup() {
  // Initialize serial communication at 9600 baud rate
  Serial.begin(9600);
} void
loop() {
  // Read the analog value from LM35 sensor
  int sensorValue = analogRead(lm35Pin);

  // Convert the analog reading to voltage (in millivolts)
  float voltage = sensorValue * (5000.0 / 1023.0);

  // Convert the voltage to temperature in degrees
Celsius float temperatureC = voltage / 10.0; if
(temperatureC >= -50 && temperatureC <= 150) {
     // Print the temperature to the Serial Monitor
     Serial.print("Temperature: ");
     Serial.print(temperatureC);
     Serial.println(" °C");
   } else {
     // Handle unreasonable temperature readings
     Serial.println("Error: Unreasonable temperature reading.");
   }
  // Delay for 1 second before taking the next reading
  delay(4000);
}
```


Output
Serial Monitor
Message (Enter to send message to 'Arduino Uno' on 'COM4')
New Line
9600 baud
Temperature: 31.28°C
Temperature: 31.28°C
Temperature: 31.28°C
Temperature: 31.28°C
Temperature: 31.28°C
Temperature: 31.77°C
Temperature: 33.24°C
Temperature: 34.21°C
Temperature: 34.21°C
Temperature: 35.19°C
Temperature: 35.19°C
Temperature: 35.19°C
Temperature: 34.70°C
Ln 14, Col 24
Arduino Uno on COM4
2


pract 7
(ARDU-IOT-V1.2)
Power Section
9-12VDC
OLED DISPLAY
SERVO MOTOR
ESP8266
5V Relay Interface
Buzzer Interface
IR TX-RX Sensor
LED Interface
Push Button
Analog Interface
Arduino UNO