

# **Tinkerers Internship**

## **Task-2 and 3**

### **Basics of Proteus and Basics of C Programming**

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Roll No.: 17

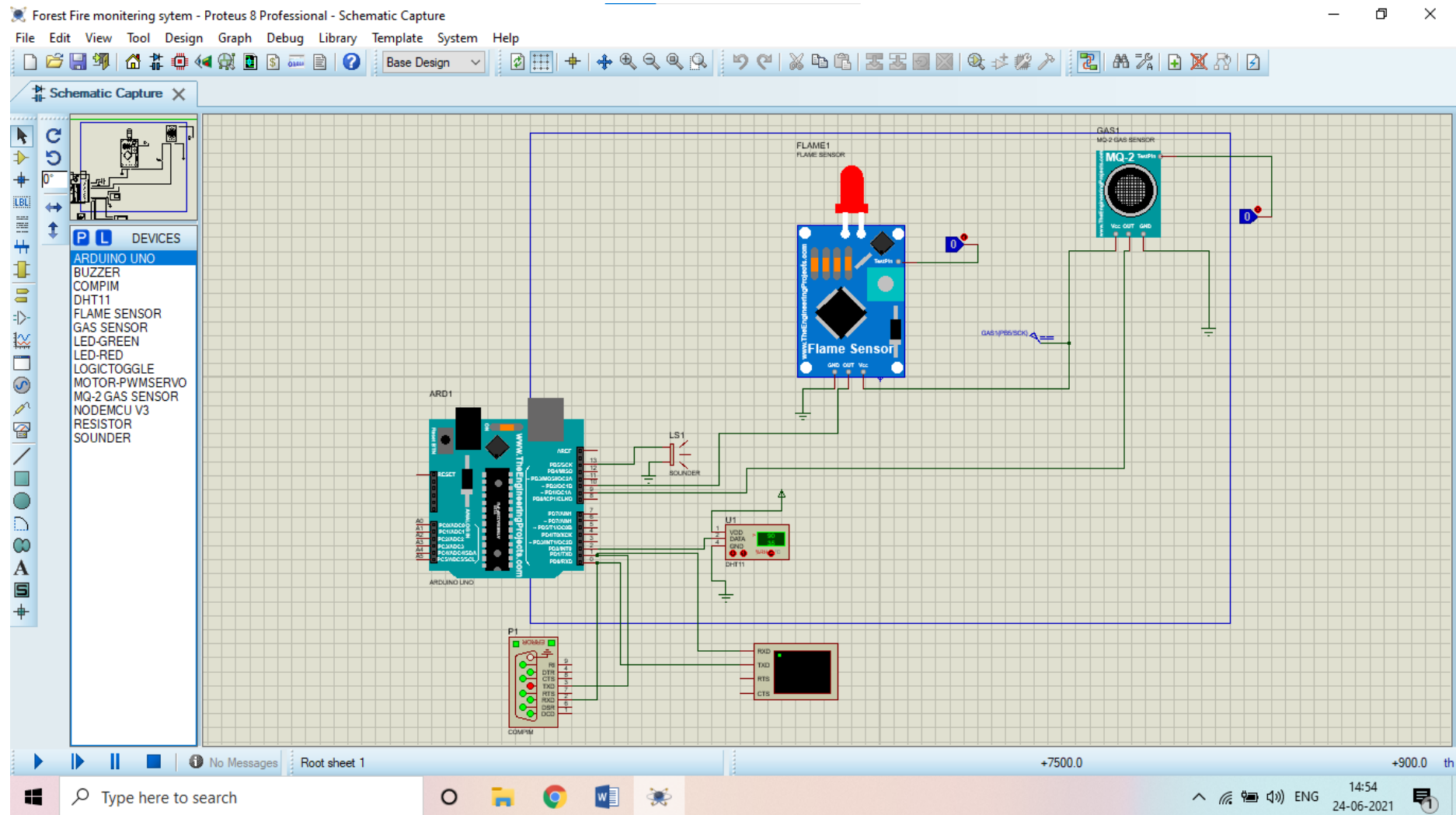
Class: D6A

DOS: 25/06/2021

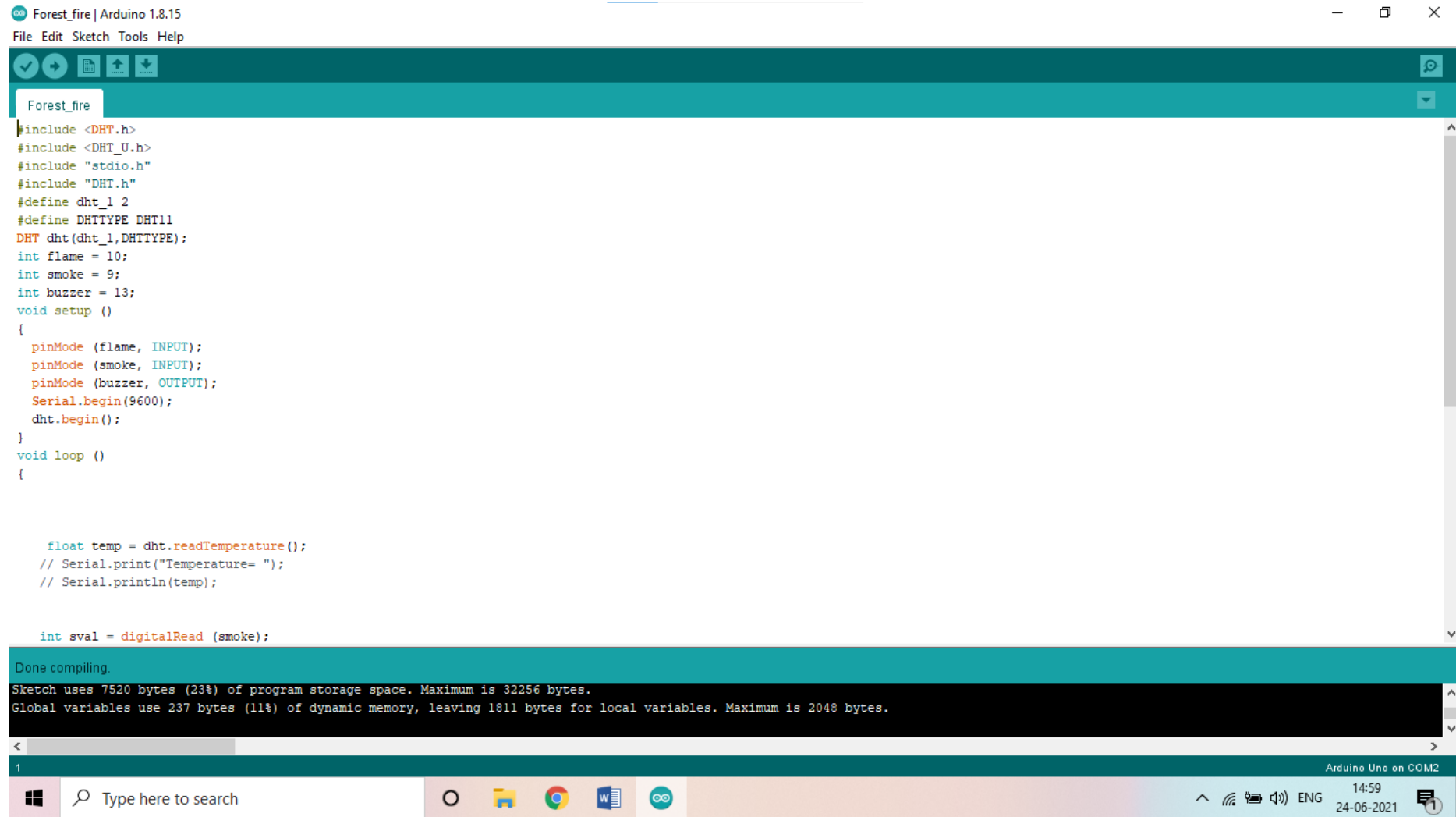
### **Submission Task –**

1. Full Screen Screenshot of proteus connection of circuit.
2. Screenshot of complete aurdino code.
3. Data uploaded on firebase. (Firebase Window)
4. Screenshot of proteus while simulation.

# Proteus Circuit for IoT Based Forest Fire Monitoring System.



## Screenshot of Aurdino code for IoT Based Forest Fire Monitering System.



```
Forest_fire | Arduino 1.8.15
File Edit Sketch Tools Help

Forest_fire
#include <DHT.h>
#include <DHT_U.h>
#include "stdio.h"
#include "DHT.h"
#define dht_1 2
#define DHTTYPE DHT11
DHT dht(dht_1,DHTTYPE);
int flame = 10;
int smoke = 9;
int buzzer = 13;
void setup ()
{
  pinMode (flame, INPUT);
  pinMode (smoke, INPUT);
  pinMode (buzzer, OUTPUT);
  Serial.begin(9600);
  dht.begin();
}
void loop ()
{

  float temp = dht.readTemperature();
  // Serial.print("Temperature= ");
  // Serial.println(temp);

  int sval = digitalRead (smoke);

Done compiling.
Sketch uses 7520 bytes (23%) of program storage space. Maximum is 32256 bytes.
Global variables use 237 bytes (11%) of dynamic memory, leaving 1811 bytes for local variables. Maximum is 2048 bytes.
```

1 Arduino Uno on COM2

14:59 24-06-2021

Forest\_fire | Arduino 1.8.15

File Edit Sketch Tools Help



Forest\_fire \$

```
float temp = dht.readTemperature();  
// Serial.print("Temperature= ");  
// Serial.println(temp);  
  
int sval = digitalRead (smoke);  
  
// Serial.print("sval = ");  
//Serial.println(sval);  
  
float humid =dht.readHumidity();  
//Serial.print("Humidity= ");  
//Serial.println(humid);  
  
int fval = digitalRead (flame);  
//Serial.print("fval = ");  
//Serial.println(fval);  
  
Serial.println("T="+ String(temp)+ ", H =" + String(humid)+ ", F =" + String(fval)+ ", S =" +String(sval));  
delay(1000);  
}
```

Done compiling.

Sketch uses 7520 bytes (23%) of program storage space. Maximum is 32256 bytes.

Global variables use 237 bytes (11%) of dynamic memory, leaving 1811 bytes for local variables. Maximum is 2048 bytes.

< >

1 Arduino Uno on COM2

Windows taskbar: Start button, search bar (Type here to search), taskbar icons (File Explorer, Chrome, Word, Arduino IDE), system tray (network, volume, ENG, 15:00, 24-06-2021, notification icon).

## Data Uploaded on Firebase.

The screenshot displays the Firebase console interface for a project named "Forest Fire Monitoring System". The left sidebar contains navigation options: Project Overview, Build (Authentication, Firestore Database, Realtime Database, Storage, Hosting, Functions, Machine Learning), Release & Monitor, Extensions, and Spark. The main content area shows the Realtime Database structure for "forest-fire-monitoring-s-27358-default-rtdb". The database is organized into four top-level nodes: Flamesensor\_data, Humidity\_data, Smokesensor\_data, and Temperature\_data. The Temperature\_data node is expanded, showing a list of data points indexed by a numeric key (0, 1, 2, 3). The first data point (index 0) is expanded, revealing a JSON object with the following fields: date: "2021-06-24", reading: "35.00", and time: "13:21". A notification banner at the top of the main area advises protecting Realtime Database resources from abuse. The bottom of the image shows the Windows taskbar with the search bar and several open applications.

Forest Fire Monitoring System

Go to docs

Protect your Realtime Database resources from abuse, such as billing fraud or phishing [Configure App Check](#)

<https://forest-fire-monitoring-s-27358-default-rtdb.firebaseio.com/>

forest-fire-monitoring-s-27358-default-rtdb

- Flamesensor\_data
- Humidity\_data
- Smokesensor\_data
- Temperature\_data
  - 0
    - date: "2021-06-24"
    - reading: "35.00"
    - time: "13:21"
  - 1
  - 2
  - 3

Database location: United States (us-central1)

Type here to search

15:02 24-06-2021

# Simulation of Circuit.

