Arduino IDE

**Introduction**

Arduino is an open-source platform used for building electronics projects.

Arduino consists of both a physical programmable circuit board (often referred

to as a microcontroller) and a piece of software, or IDE (Integrated

Development Environment) that runs on your computer, used to write and

upload computer code to the physical board.

**Arduino function and library used in project-**

**Library**

1. ESP8266WiFi.h

2. Adafruit\_MQTT.h

3. Adafruit\_MQTT\_Client.h

**Functions & Description..**

|  |  |
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| **Function Signature** | **Description** |
| void setup() | The setup() function is called when a sketch starts. Use it to initialize variables, pin modes, start using libraries, etc. |
| void delay(ms) | To delay process in ms. |
| unsigned int micros() | To Return time from start of mcu in ms. |
| Serial.begin(speed) | To set speed of serial input output in baud. |
| void pinMode(pin, mode) | To set pin for either input or output. |
| Void loop() | After creating a setup() function, which initializes and sets the initial values, the loop() function does precisely what its name suggests, and loops consecutively, allowing your program to change and respond. Use it to actively control the Arduino board. |
| WiFi.begin(ssid, pass); | To connect with wifi. |
| server.begin() | Tells the server to begin listening for incoming connections. |
| client.connected() | Whether or not the client is connected |
| client.read() | Read the next byte received from the server the client is connected to (after the last call to read()). |
| client.stop() | Disconnect from the server. |

Table No. 1