

```

//Including the needed libraries
#include <WiFi.h>
#include "ThingSpeak.h"

//Creating variables that hold all variables needed to connect to Wifi
and find the thingspeak channel I am uploading to
char ssid[] = "Baggadown";

const char password[] = "EscomP75!!";
const unsigned long channel_id = 1626364;
const char write_api_key[] = "FOTQWKESYHKVYSW8";

WiFiClient client;

void setup() {
    // initialize serial communication at 9600 bits per second:
    Serial.begin(9600);

    delay(80);
    //Connects to Wifi using variables provided earlier
    Serial.print("Connecting to ");
    Serial.println(ssid);
    WiFi.begin(ssid, password);

    //Project gets stuck on this while loop while waiting for a WiFi
    connection
    while (WiFi.status() != WL_CONNECTED) {
        delay(500);
        Serial.println("Not Connected");
    }
    Serial.println("Connected Sucessfully");

    //Begins the ThingSpeak client
    ThingSpeak.begin(client);
    pinMode(0, INPUT);
}

```

```
}
```

```
void loop() {
```

```
    // reads the input on analog pin A0 (value between 0 and 1023)
```

```
    int analogValue = analogRead(0);
```

```
    //Prints the light level using words rather than just numbers
```

```
    if (analogValue < 10) {
```

```
        Serial.println(" - Dark");
```

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

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

```
    } else if (analogValue < 20) {
```

```
        Serial.println(" - Dim");
```

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

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

```
    } else if (analogValue < 50) {
```

```
        Serial.println(" - Light");
```

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

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

```
    } else if (analogValue < 80) {
```

```
        Serial.println(" - Bright");
```

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

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

```
    } else {
```

```
        Serial.println(" - Very bright");
```

```
    }
```

```
    //Uploads data to thingspeak
```

```
    ThingSpeak.setField(1, String(analogValue));
```

```
    ThingSpeak.writeFields(channel_id, write_api_key);
```

```
    //A small delay between loops
```

```
    delay(1000);
```

```
}
```