Introduction & Project Objective

We hear a lot about IoT AKA Internet of things. What is This? The things i.e. devices which are connected to the internet.

it's estimated by 2020 there will be 50 billion devices connected to the Internet.

Let's design a simple application that will illustrate the concept about IoT, Where the climate (i.e. temperature & Humidity) in the living room are logged to the server or the Fancy Name called "cloud".

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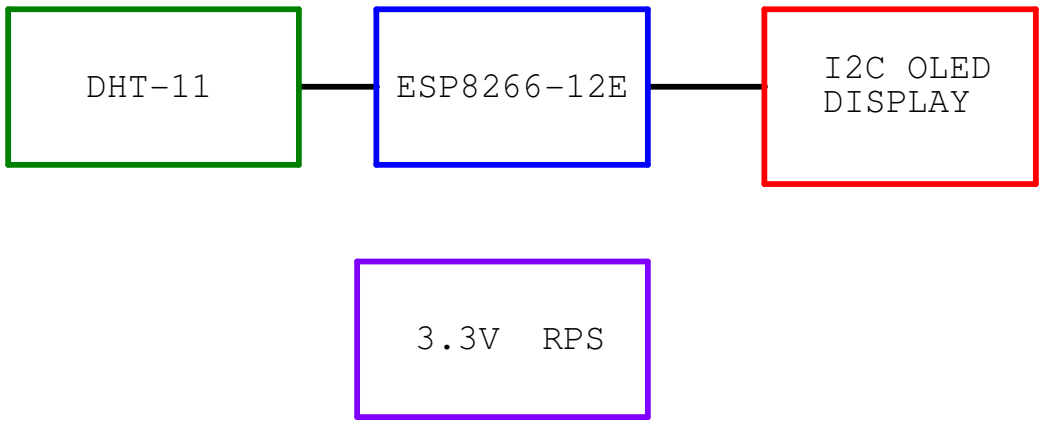
FUNCTIONAL BLOCK DIAGRAM



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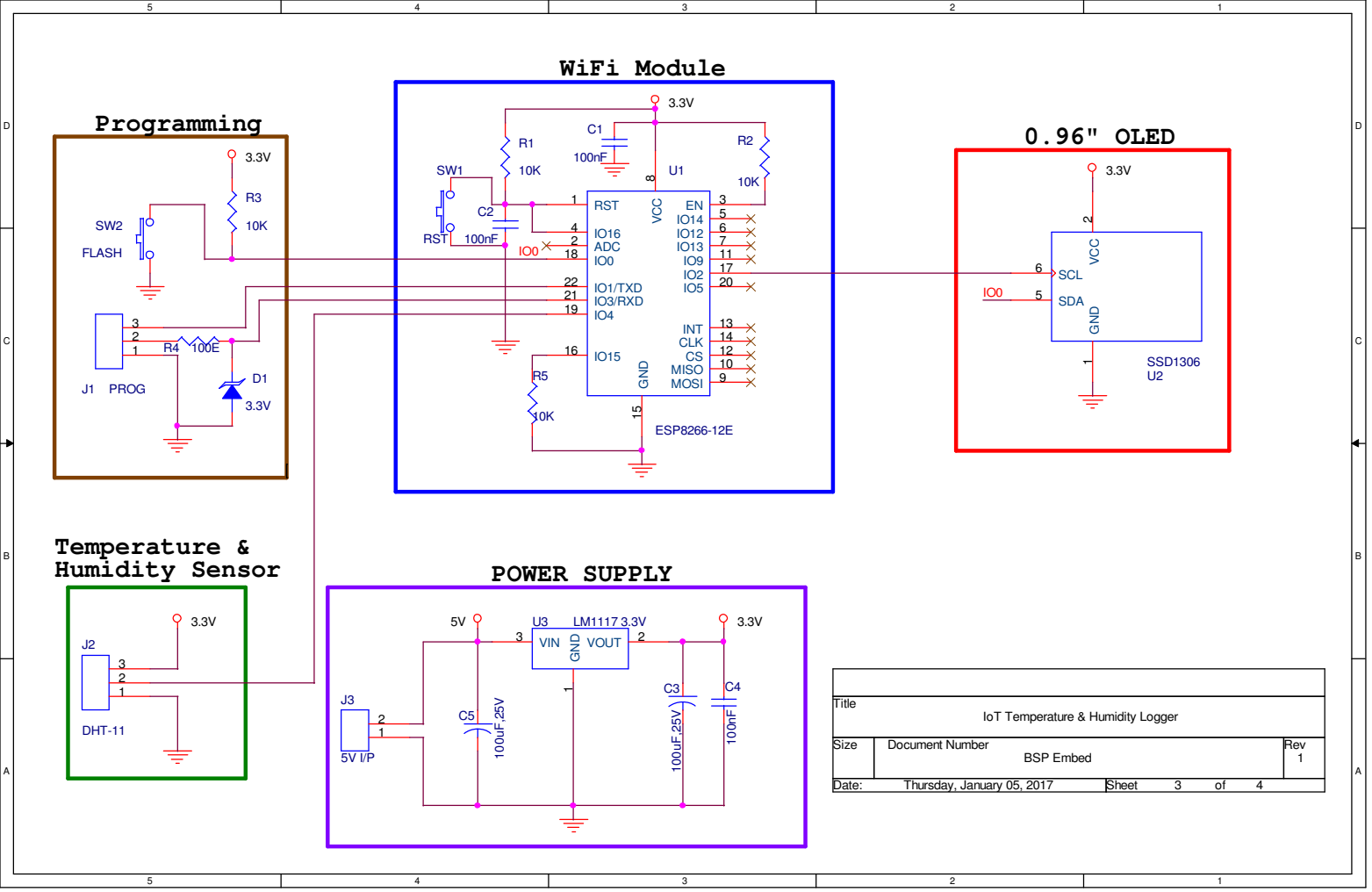

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Initial Setup Procedure

The first thing was getting an API key from ThingSpeak https://thingspeak.com/

Create an New Channel

Enter the Name of the channel.

Enter Field 1 as Temperature and Field 2 as Humidity and Enable the Field.

Remaining Fields are optional.

Save Channel.

Channel information will be displayed. Get write API key from API Keys Tab.

Download & Install Libraries from GitHub

https://github.com/adafruit/Adafruit_SSD1306

https://github.com/adafruit/Adafruit-GFX-Library

https://github.com/adafruit/Adafruit_Sensor

https://github.com/adafruit/DHT-sensor-library

Add all these Libraries to Arduino IDE.

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