# Self Hosted Data Logger for Arduino

**Steak Electronics** 

## 1 Preface

I did some research on available self hosted solutions for Arduino, as of January 2019. I was thinking of using Thingspeak, but they haven't updated their self hosted git repo since 2016. Adafruit.io is the same but  $2017^1$ . Sparkfun closed down their solution.<sup>2</sup> It seems theother data aggregaters are only interested in people giving them data, so they can then sell it, hoard it like wealth, etc... Another solution is necessary.

## 2 Plan

Since I've done some data logging with GNUplot before, I've decided to use a flat text file, and csv output. I don't want to deal with MQTT, as this is in a safe LAN (not over WAN), and security is no issue. I also don't want the clients to do any sending. They are stupid, they sit there, and the server is responsible for data collecting. Simple.

What I will do, as I've already started doing, is hosting a web server on the microcontroller, which has amongst other things, sensor data available. The server will pull data from the sensor, and place it into a flat file. GNUplot will run via cron scripts, and the server will host various jpgs. Let's see how this goes.

#### 3 Implementation

#### Ingredients

• SBC (Beaglebone, Rpi)

<sup>&</sup>lt;sup>1</sup>And uses node.js :/

<sup>&</sup>lt;sup>2</sup>Apparently they have no idea what they are doing, and their solution inevitably blew up. Bloated software...

- Network Connected Sensors
- Time