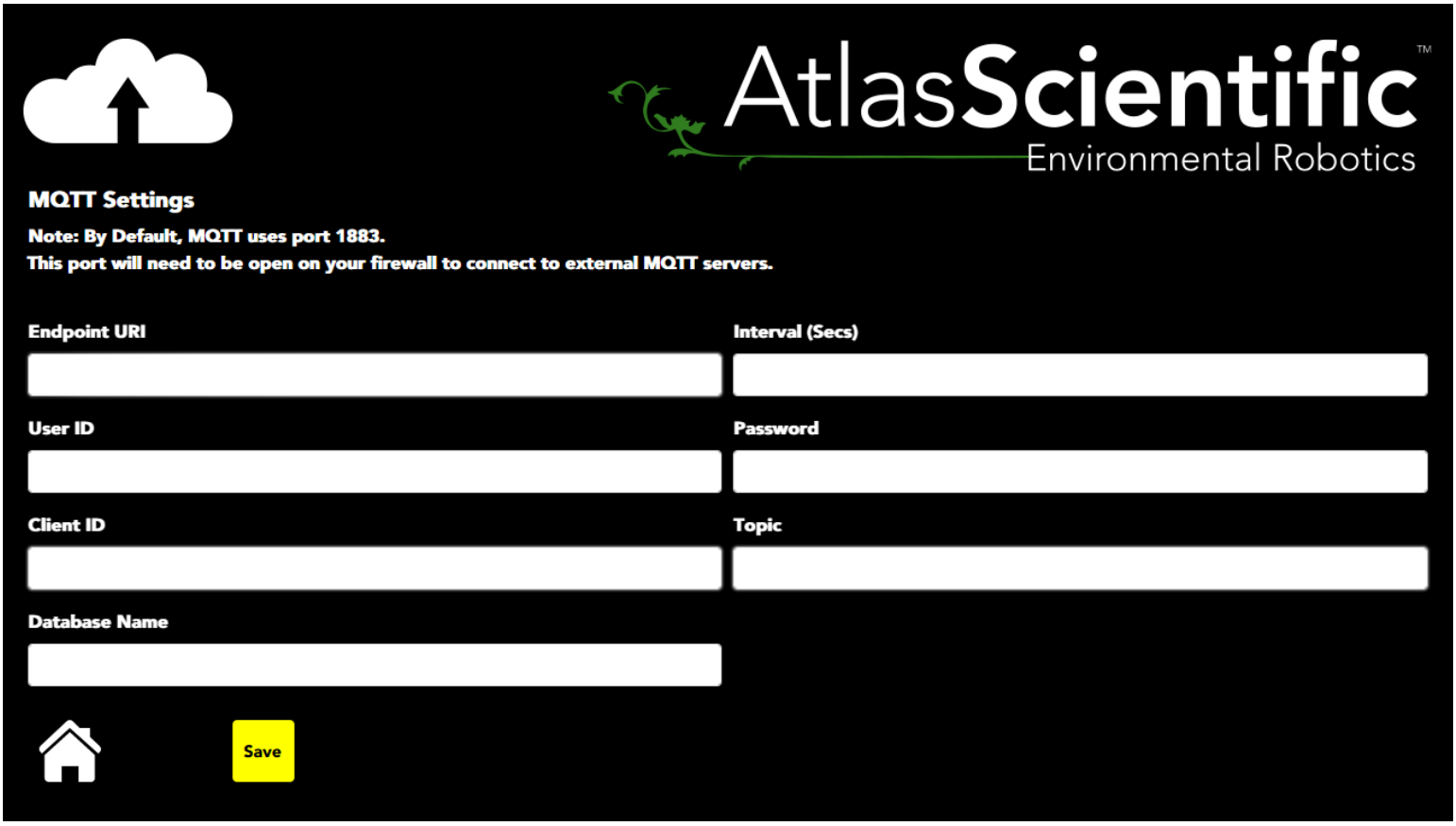
MQTT Settings Guide



Endpoint URI - The web address of your MQTT broker.

Example io.adafruit.com

User ID - If your broker requires a login, this is where your user ID goes.

Example myUserId

Password - If your broker requires a login, this is where your password goes.

Example mypassword

Interval (secs) - How often the IoT should send to data to the broker.

Example 60

ClientID - A random ClientID. *(no spaces)*

Example My_Device

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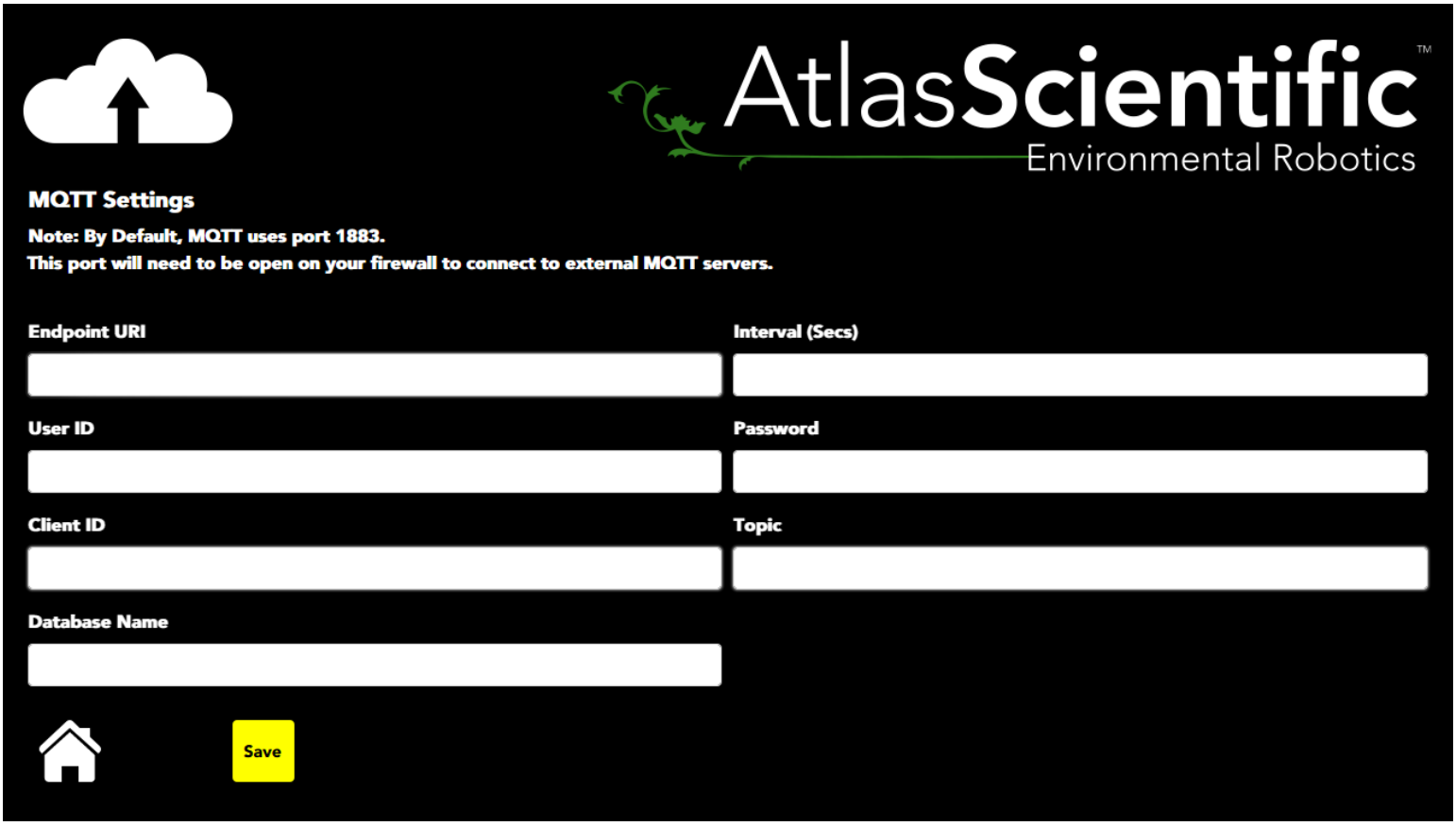

Topic - The MQTT topic the data will be sent out under.

See http://www.steves-internet-guide.com/understanding-mqtt-topics/

Note
We append on some subtopics /SensorType/Add_(SensorAddress)/SensorName

Example /RTD/add_102/MyName

If there is no name set, we leave off that subtopic.

Database Name - This field shows the filename and location of the database.

./IoTData.db - This is the default filename and location of the database.

In the database is a table named SensorData, which have the following fields:

id INTEGER PRIMARY KEY	=	**contains the ID number of the record**
RecordDateUTC text	=	**contains time and date of readings: yyyy-mm-dd-00:00:00**
sensorType text	=	**contains the type of sensor(s) you are using**
moduleName text	=	**contains the name you have given to the sensor(s)**
lastReading text	=	**contains the last reading from the sensor(s)**
sensorData text	=	**contains All JSON information**

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MQTT with Mosquitto

Note: By Default, MQTT uses port 1883. This port will need to be open on your firewall to connect to external MQTT servers.

Mosquitto is an Open Source MQTT broker that works quite well and is easy to troubleshoot. It can be found at https://mosquitto.org and is well supported.

If you assume your Mosquitto Broker is on a computer called **MyComputer.**
Your settings for the Atlas IoT would be

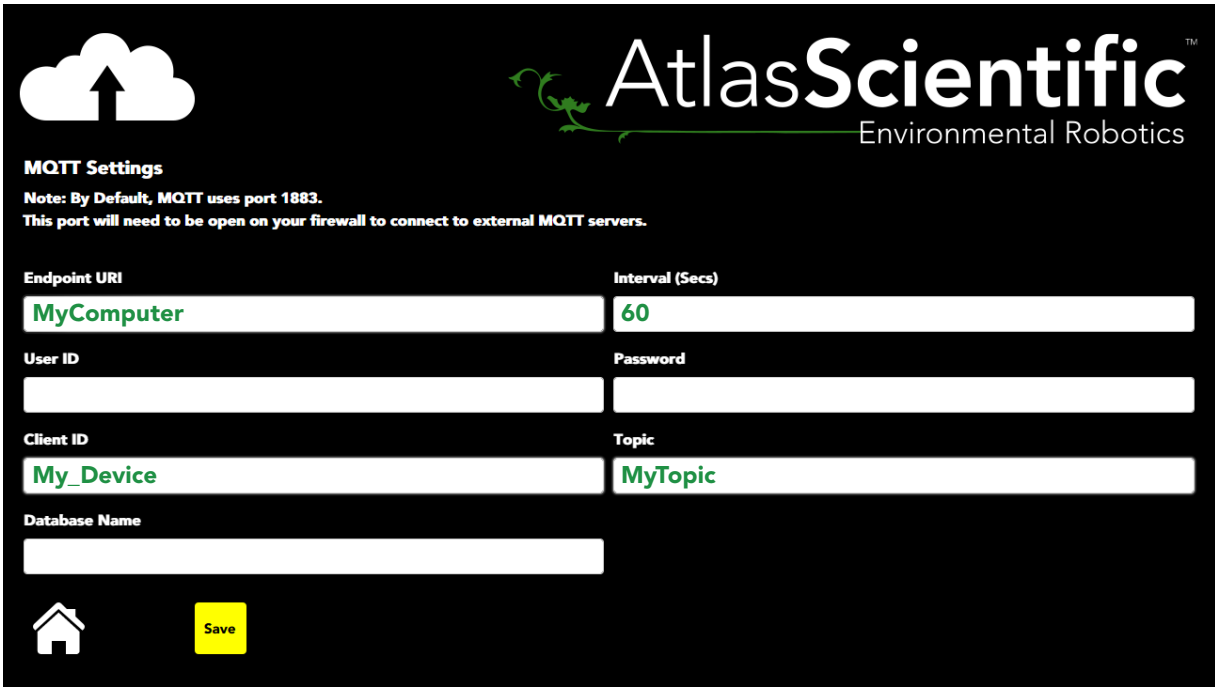
Endpoint URI	MyComputer
User ID	leave blank, if you did not setup a user ID
Password	leave blank, if you did not setup a password
Interval (Secs)	60 is a good place to start
Client ID	My_Device *(No spaces)*
Topic	MyTopic *(I usually do NOT put the starting "/")*

We will append a series of subtopic onto your topic

Example
If you are running an EZO™ RTD Temperature Circuit on the default address, and have named it, Mosquitto will receive the topic **MyTopic/RTD/add_102/SensorName**

If the circuit is unnamed (default) it will be **MyTopic/RTD/add_102**

If you have multiple sensors, there will be multiple topics, all underneath **MyTopic**.
You should see them in your Mosquitto_sub session



MQTT with Mosquitto

Troubleshooting

If we assume that you have installed Mosquitto on a computer called **MyComputer** (see their website https://mosquitto.org for ports to open, etc),

You can monitor all traffic to that broker with a program call **mosquitto_sub** *(comes in the install package)* The Manual can be found by clicking HERE

Assuming you have not setup mosquitto for login, the command would be **mosquitto_sub -v -h MyComputer -t '#'**

That command subscribes to ALL topics (**'#'**) in a verbose manner.

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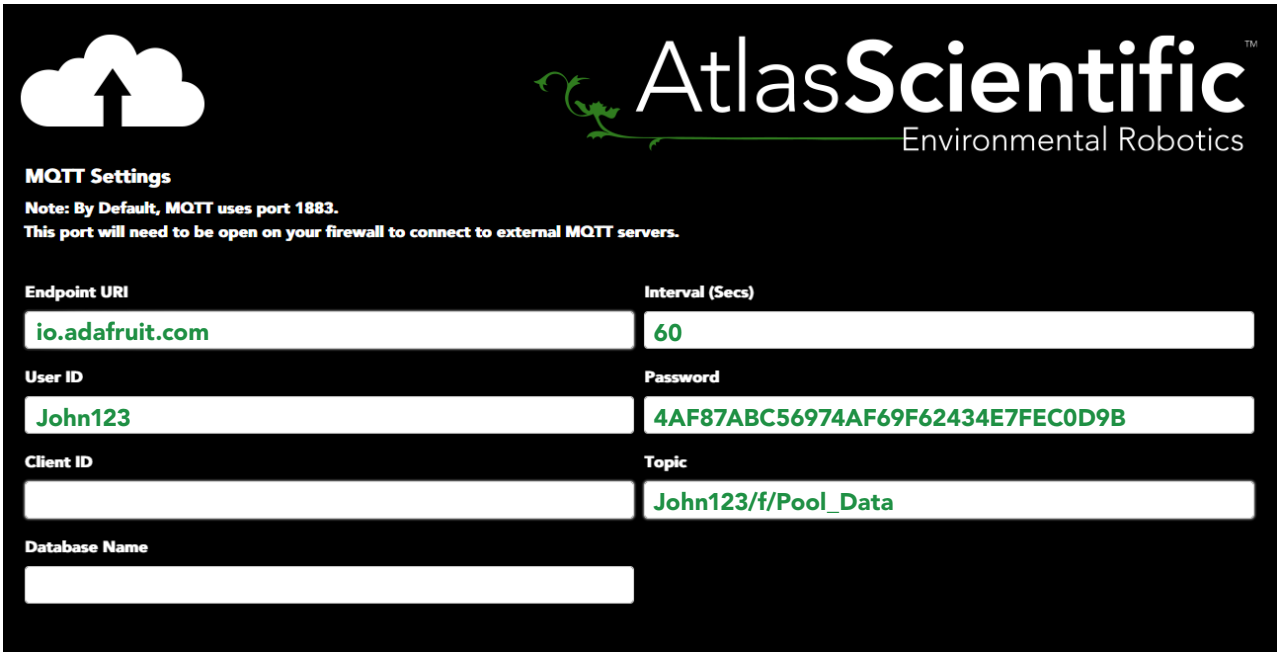
MQTT with io.adafruit.com

Note: By Default, MQTT uses port 1883. This port will need to be open on your firewall to connect to external MQTT servers.

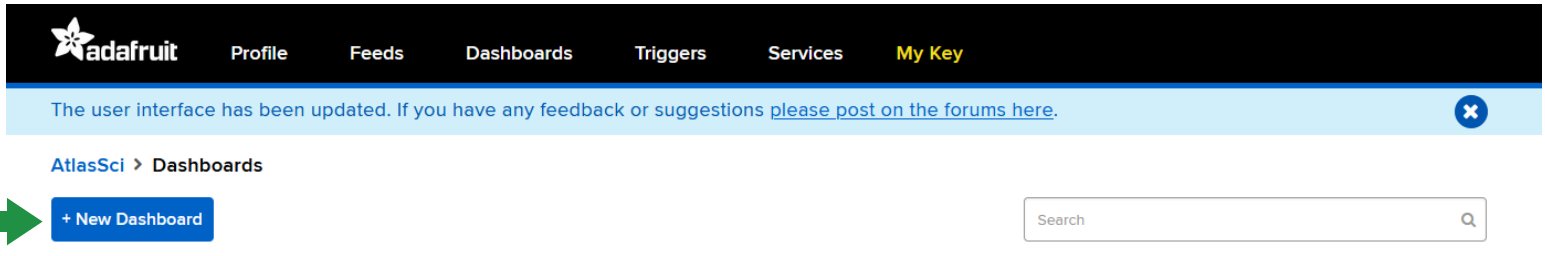
io.adafruit.com is a MQTT broker that has some limitations, but is usually quite reliable. That said, it has some differences from stock Mosquitto.

Your settings for the Atlas IoT would be

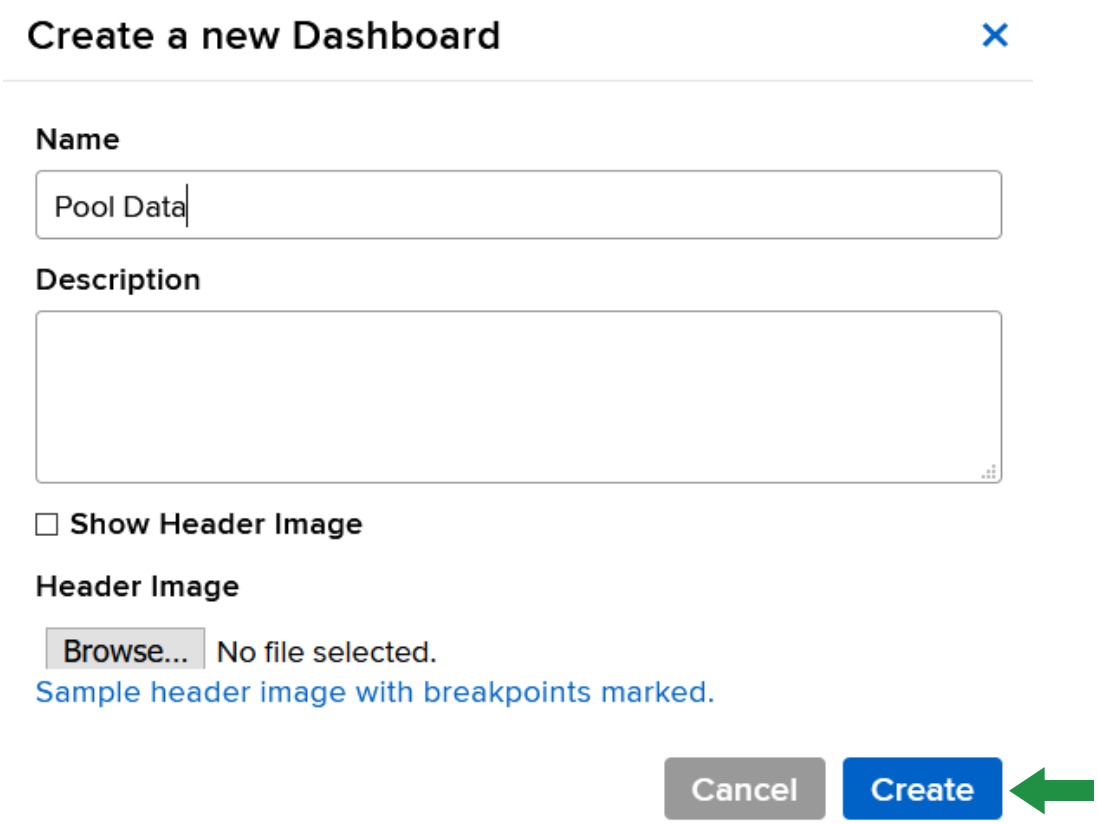
Endpoint URI	io.adafruit.com
User ID	your loginID. ***Example*** John123
Password	This is the Adafruit IO key, a 32digit ID that you generate and download from the adafruit site. ***Example*** 4AF87ABC56974AF69F62434E7FEC0D9B
Interval (Secs)	60 is a good place to start
Client ID	*(Not used for adafruit, leave blank)*
Topic	*This is the name of your data set. (choose a name,* ***Example*** *Pool_Data*
	Format *UserID/f/MyTopicNoSpaces*
	Example *John123/f/Pool_Data*



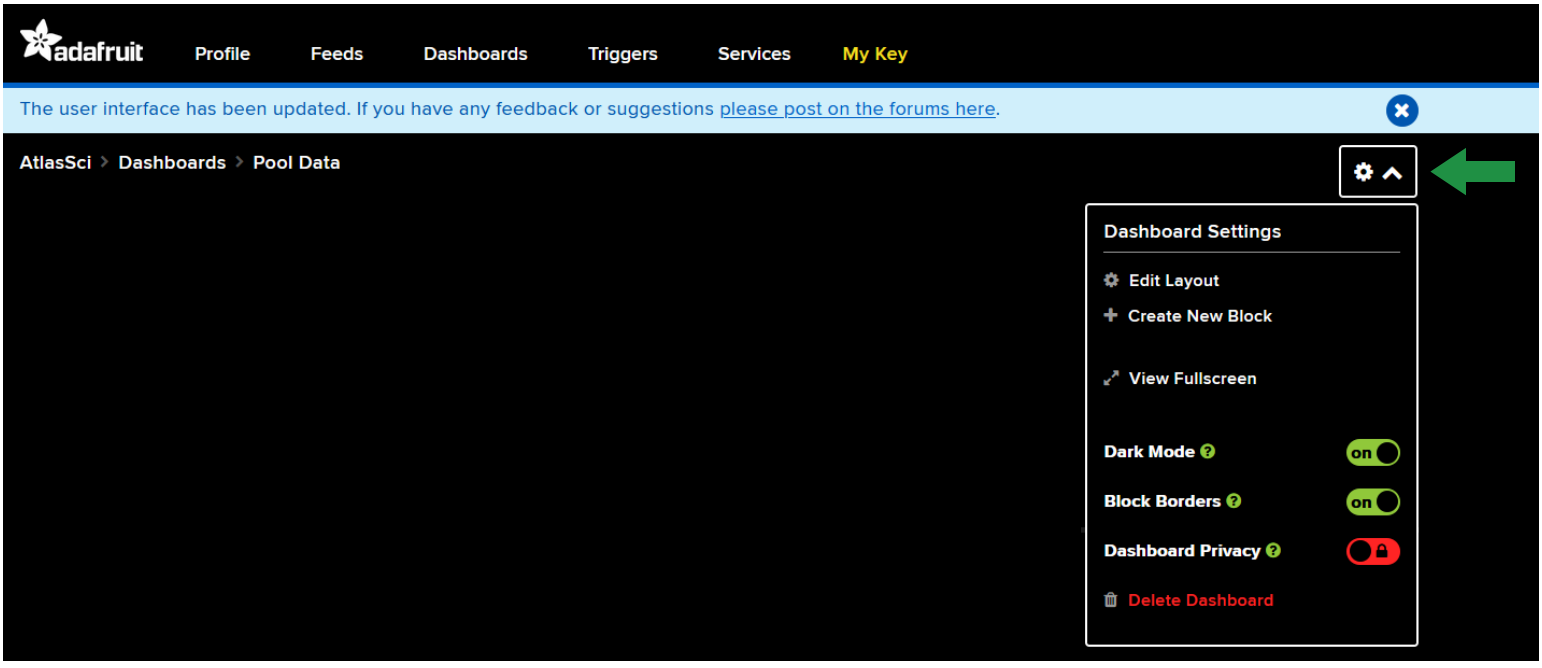
Once you hit save, go to io.adafruit.com and click on dashboard, + New Dashboard.



Name your dashboard and hit create.



Once complete, click on your new dashboard.



Click the gear icon located on the top right; Then click on ***+ Create New Block.***

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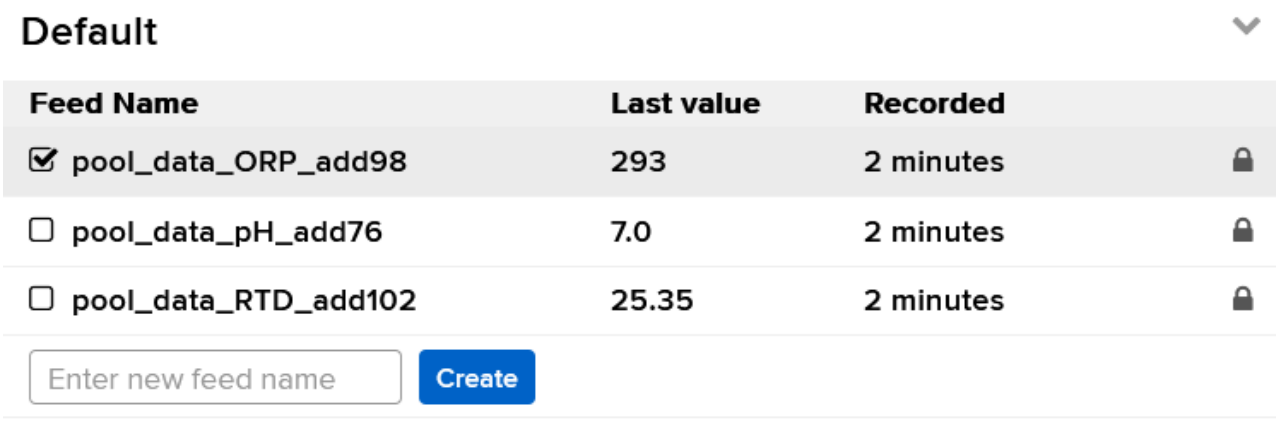
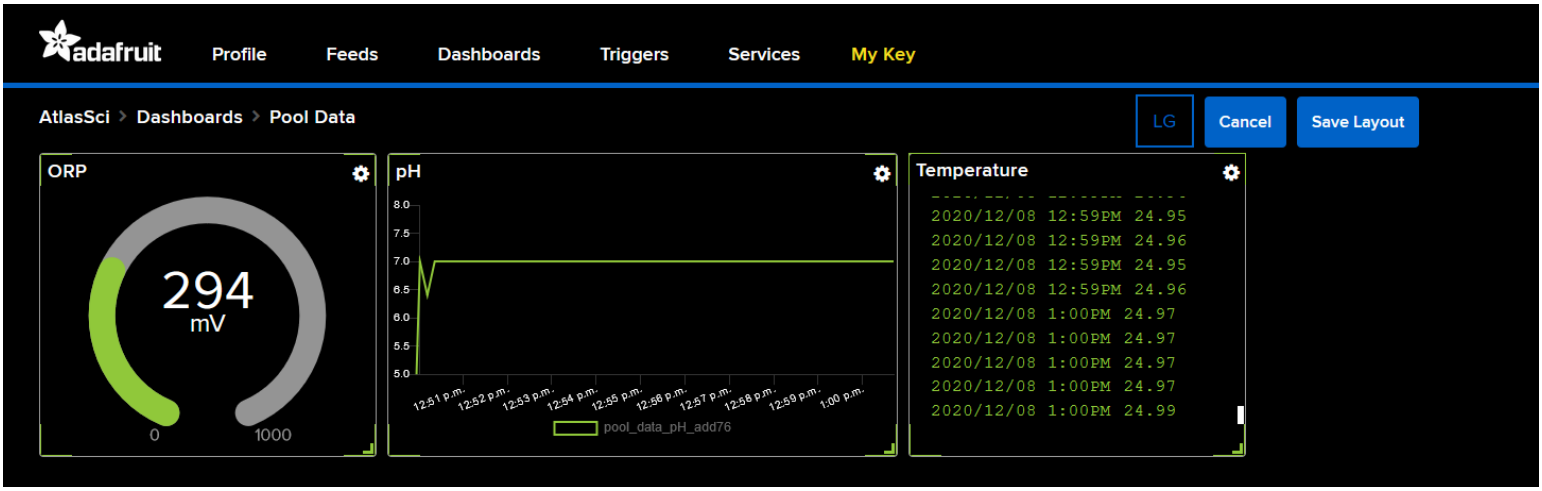
Choose the style you would like to see your data in, and apply the style to your sensor feed.



Once complete your dashboard could look like this:



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