HackBright Workshop

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While you are waiting please make sure you have downloaded the 'Electric Imp' app for mobile device

What are we doing tonight

Obligatory Internet of Things (IoT) Slide

Workshop

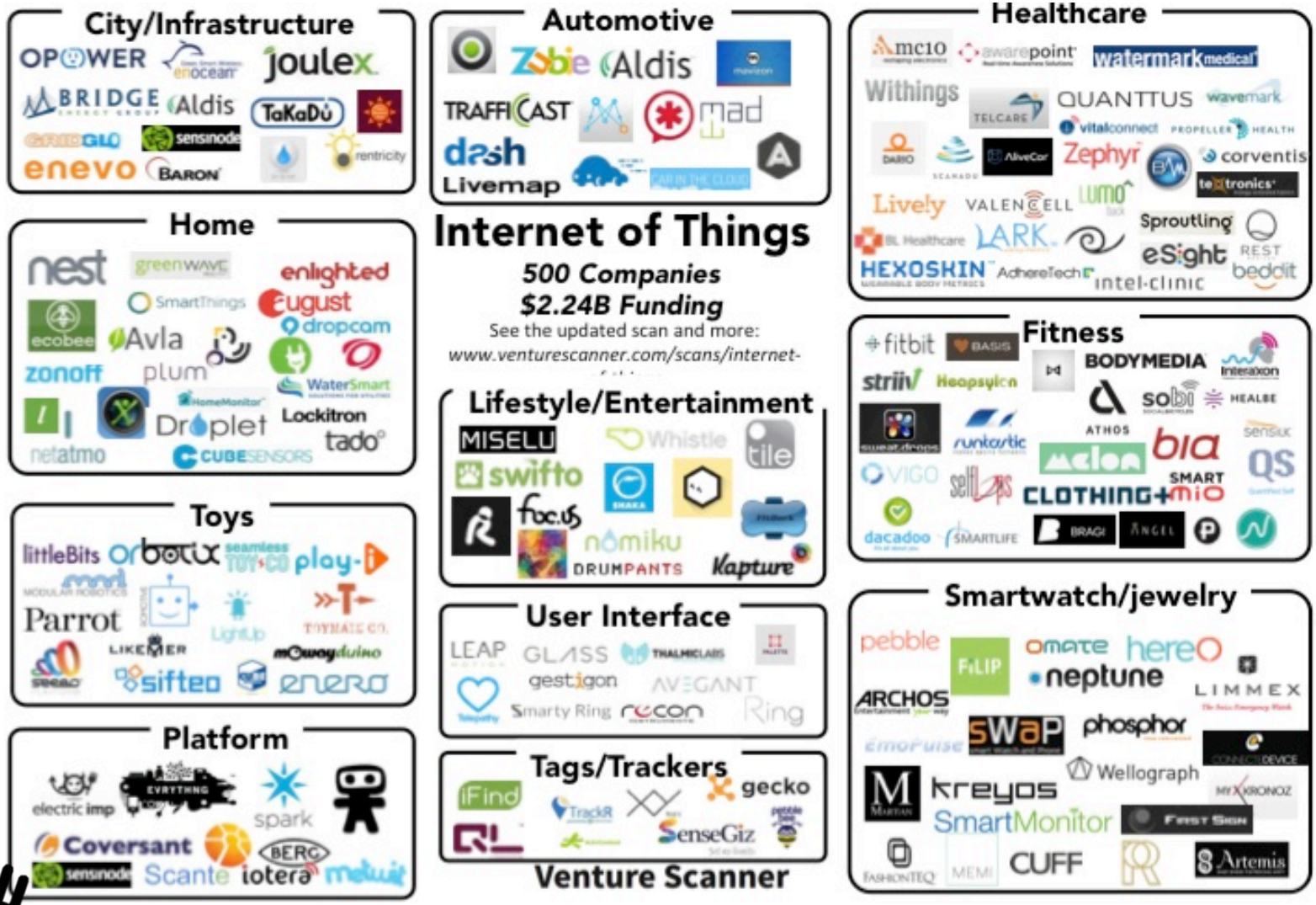
- Getting your imp online
- Controlling an LED with a button
- Controlling an LED with an API
- Controlling an LED with Twitter

Take home project

- TempBug + SparkFun Data

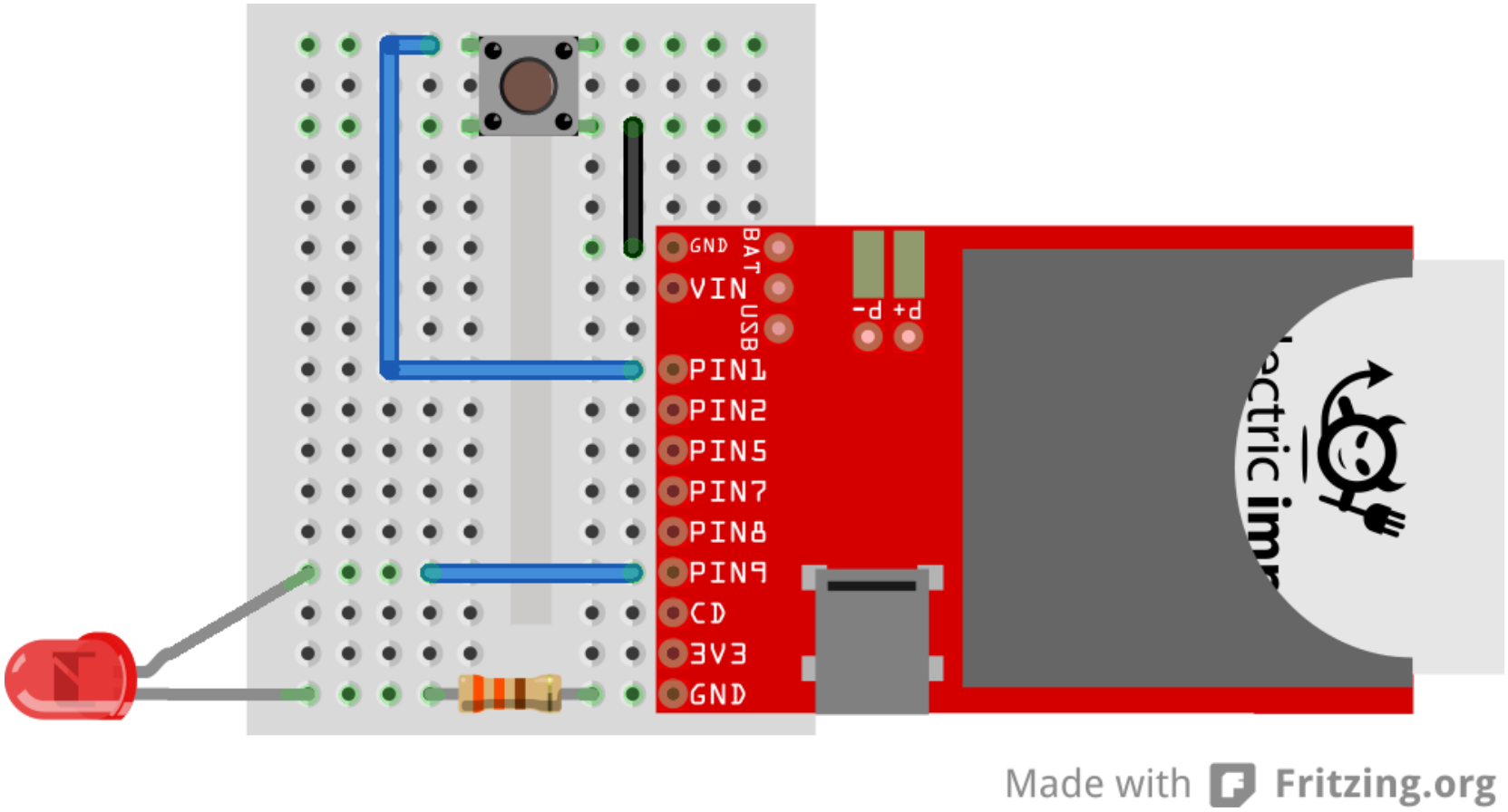
https://github.com/beardedinventor/hackbright2k15

The Internet of Things



Let’s get started

Build a circuit

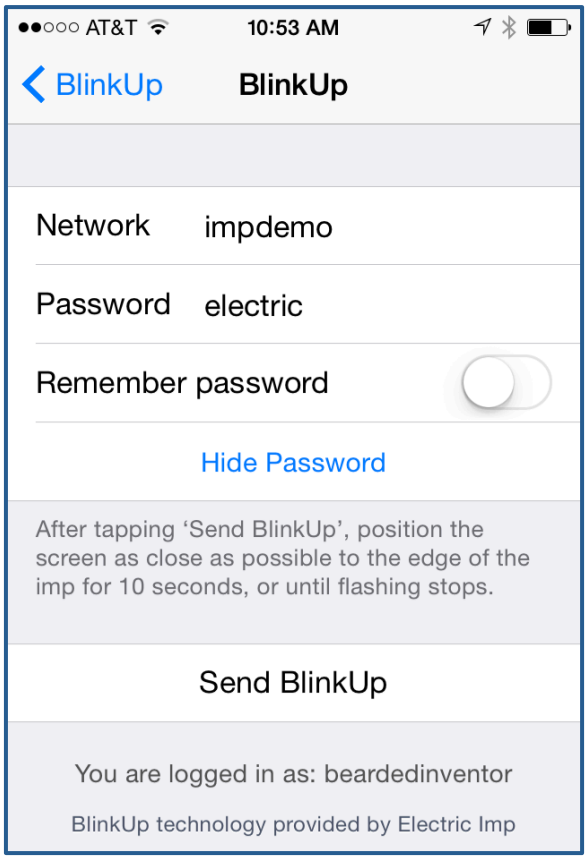


Getting your imp online

Getting your imp online

- Download the Electric Imp mobile app (available on iOS and Android app stores)
  - Sign into the app with your Electric Imp Account
  - Choose "Other Network"
  - Enter WiFi credentials:
    - **Network**: impdemo
    - **Password**: electric

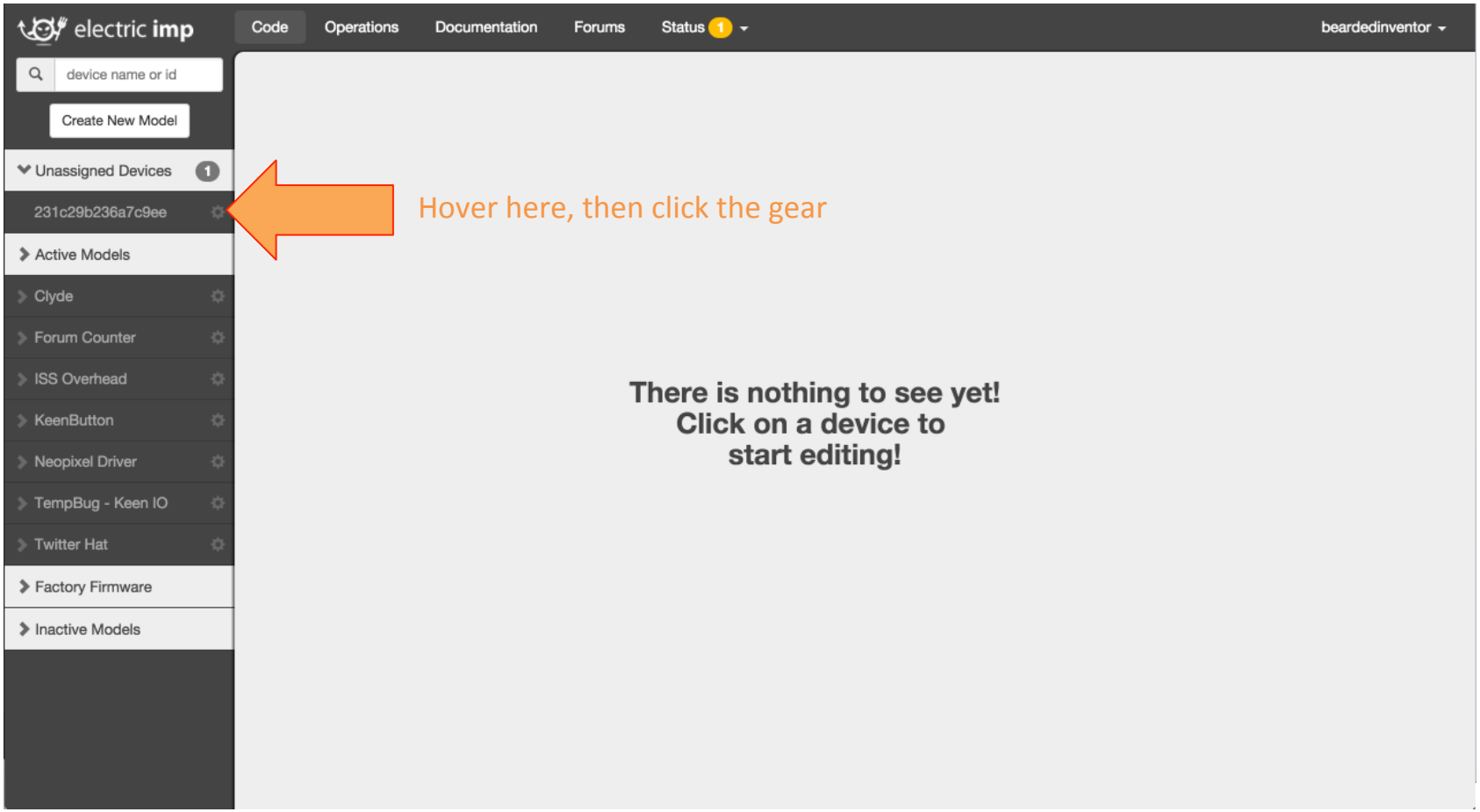
- Power up your imp
  - The imp's internal LED must be blinking
- Click **Send BlinkUp** in the mobile app
- Hold screen of phone against end of Imp until BlinkUp completes
- Your device should now be blinking green (online)*



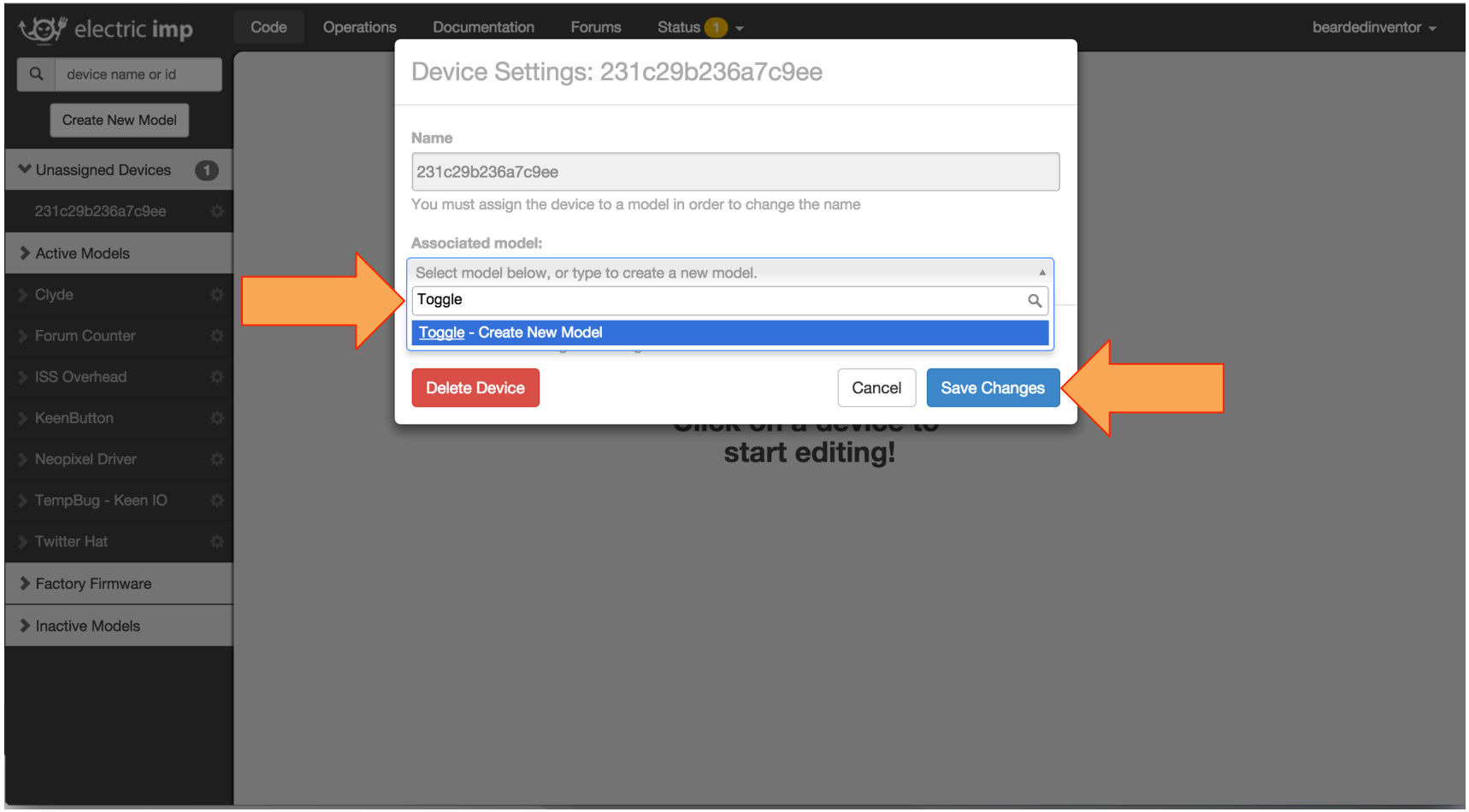
* Your imp will stop blinking after 1 minute to save power (it is still powered on)

Example 1 – Buttons & LEDs

Example 1 – Controlling an LED with a Button



Example 1 – Controlling an LED with a Button



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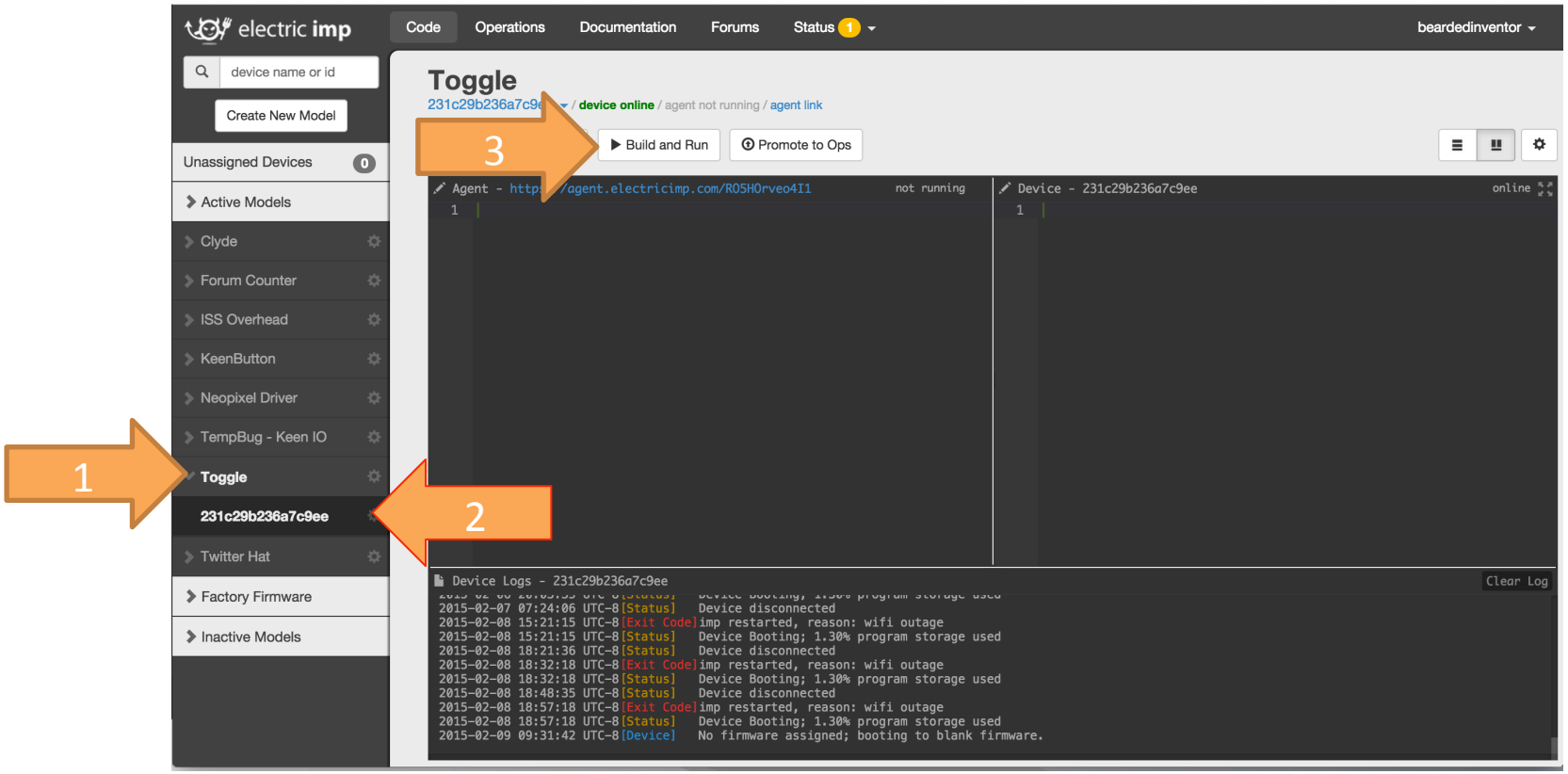

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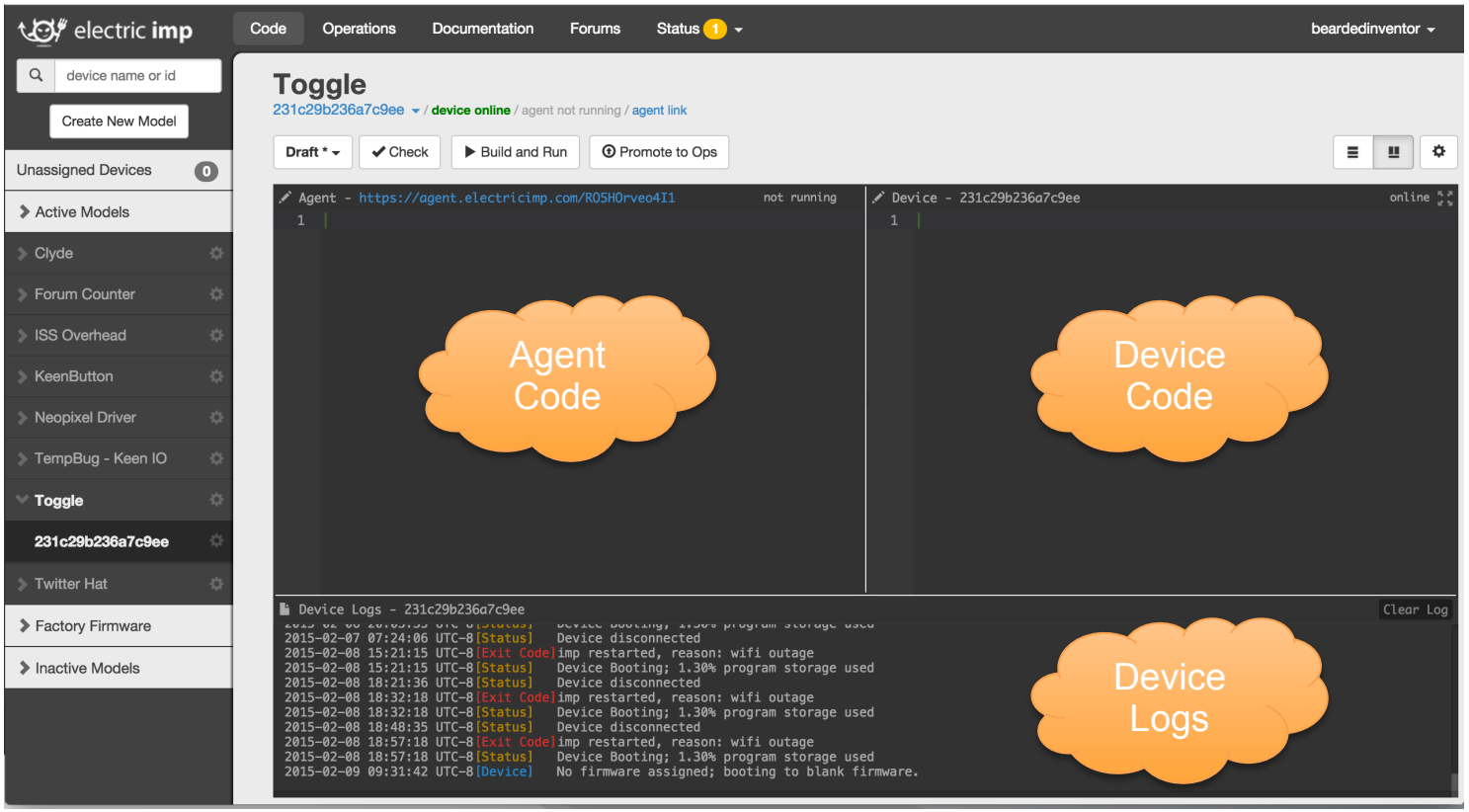

Example 1 – Controlling an LED with a Button

https://github.com/beardedinventor/hackbright2k15/tree/master/toggle

1) Copy the code in toggle.device.nut into the **device editor**
2) Copy the code in toggle.agent.nut into the **agent editor**

3) Hit ‘Build and Run’
4) Play around with the button to see what happens!

Example 2 – LED API

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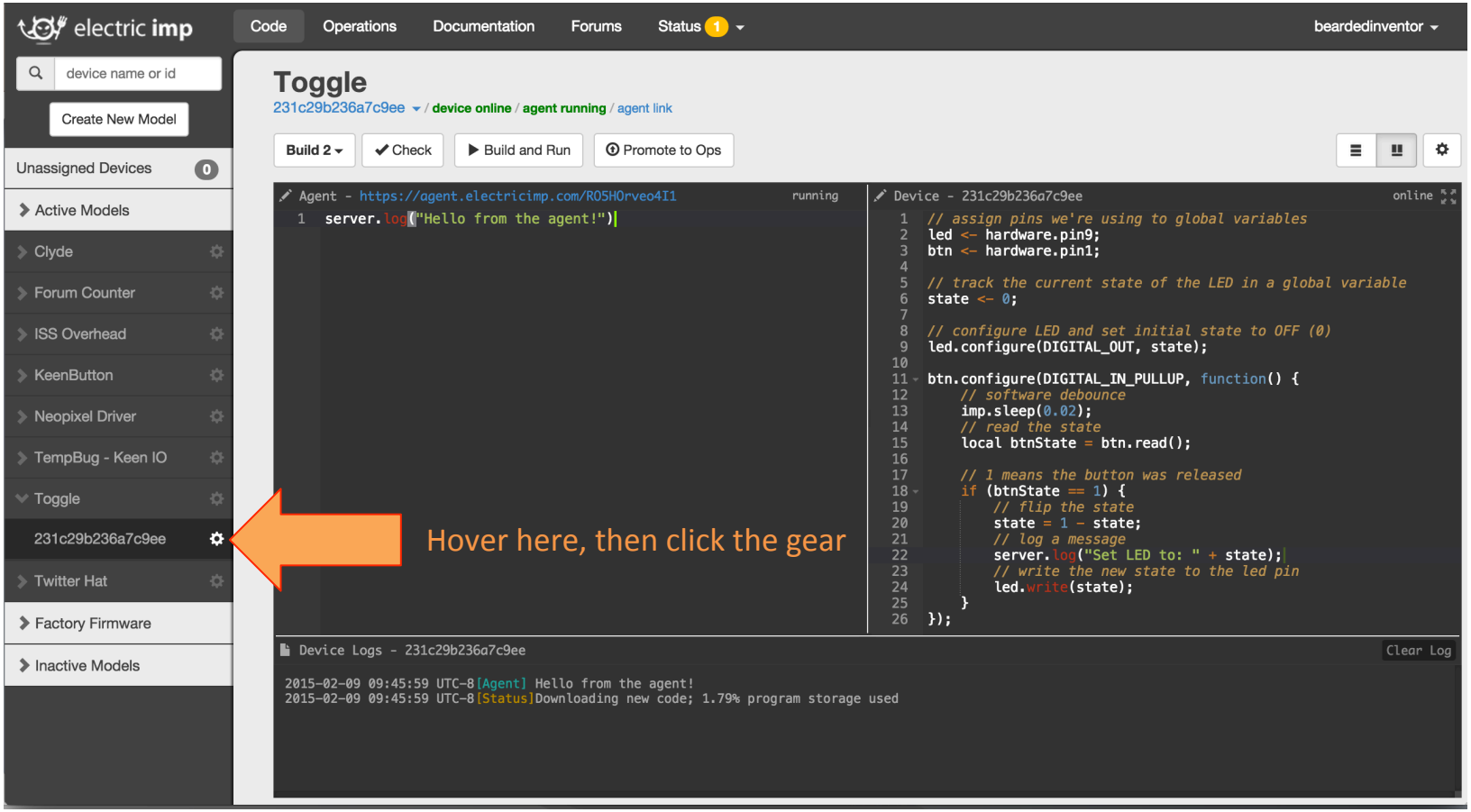
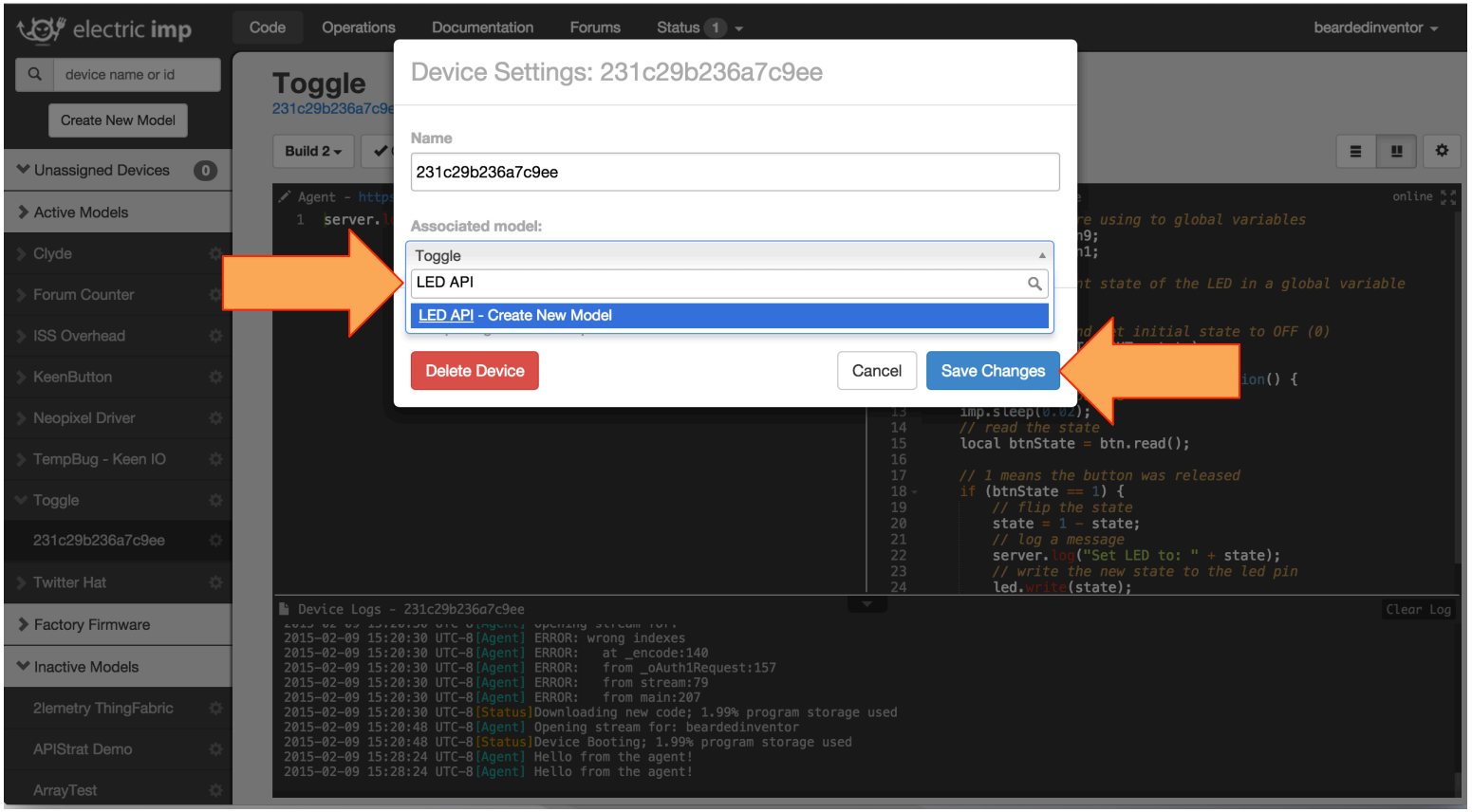


Example 2 – LED API



Example 2 – LED API

https://github.com/beardedinventor/hackbright2k15/tree/master/api

1) Copy the code in api.device.nut into the **device editor**
2) Copy the code in api.agent.nut into the **agent editor**

3) Hit Build and Run
   * The URLs you need to control your LED should be in the **Device Logs pane**
4) Copy and paste the URLs into a new browser window (or cURL, etc) to control your LEDs
   * These are endpoints on the Internet now, so anyone with the URL can control them

5) Bonus Points – Build a webpage/script to control your/your friends' LEDs

Example 3 – Twitter Indicator

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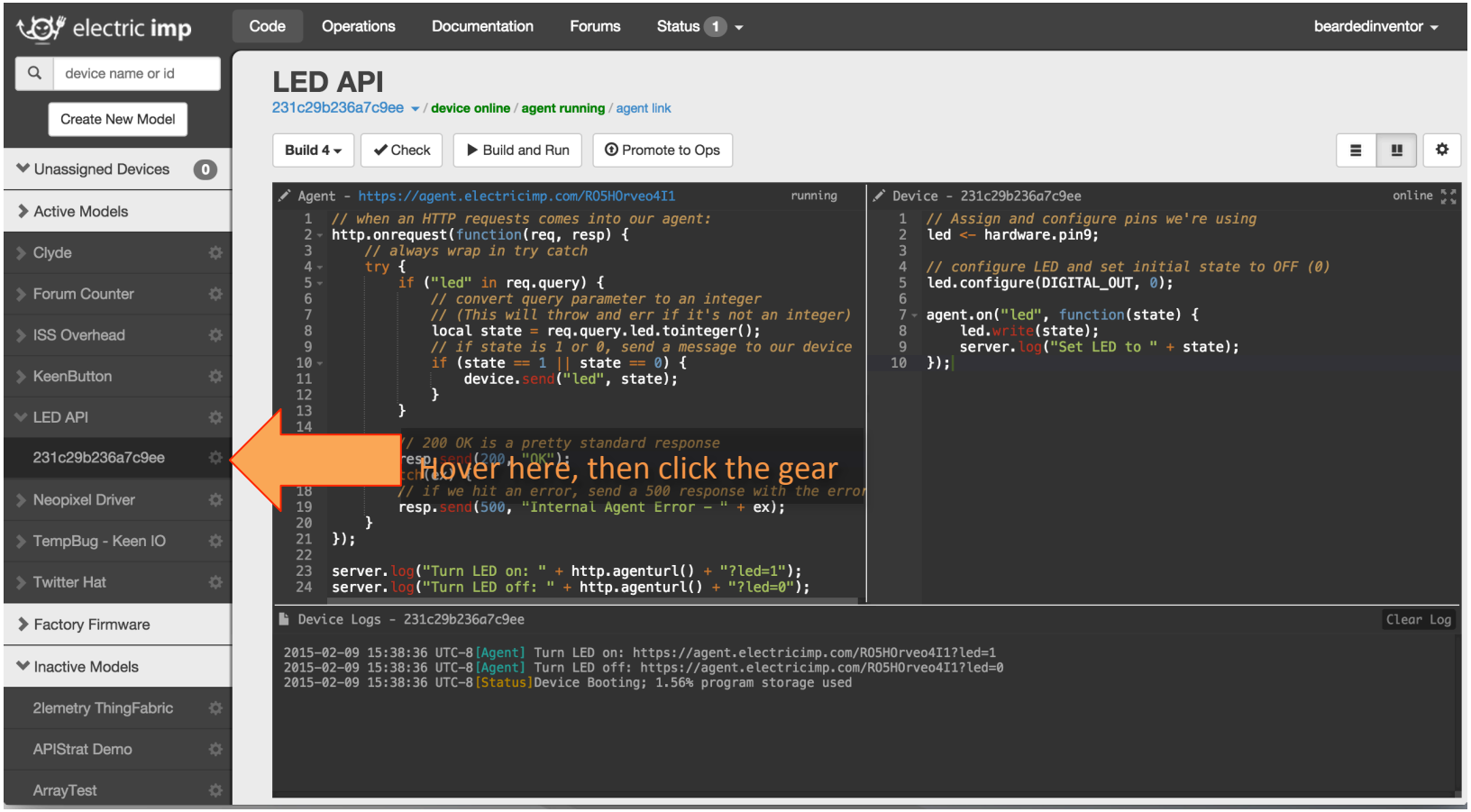

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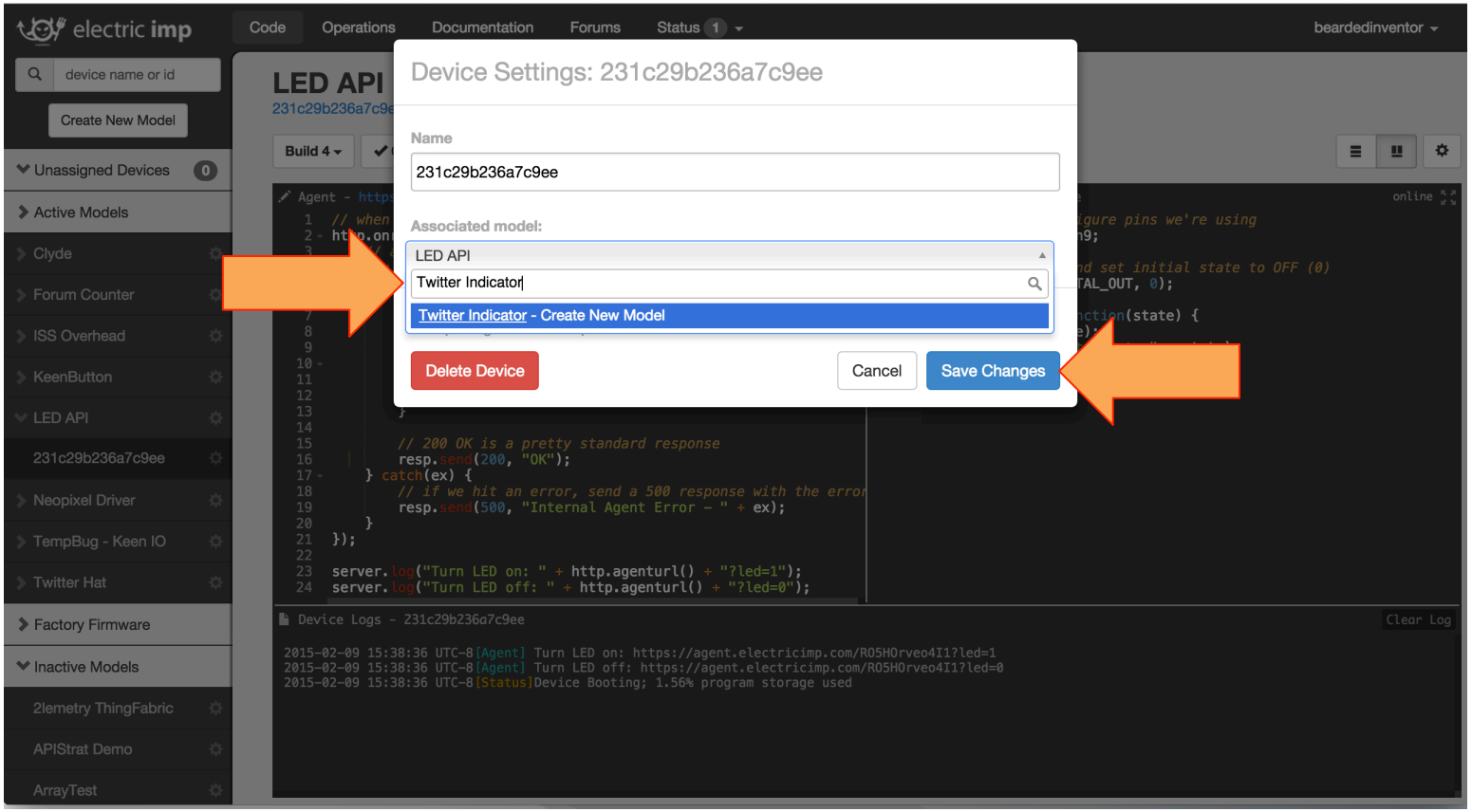


Example 3 – Twitter Indicator

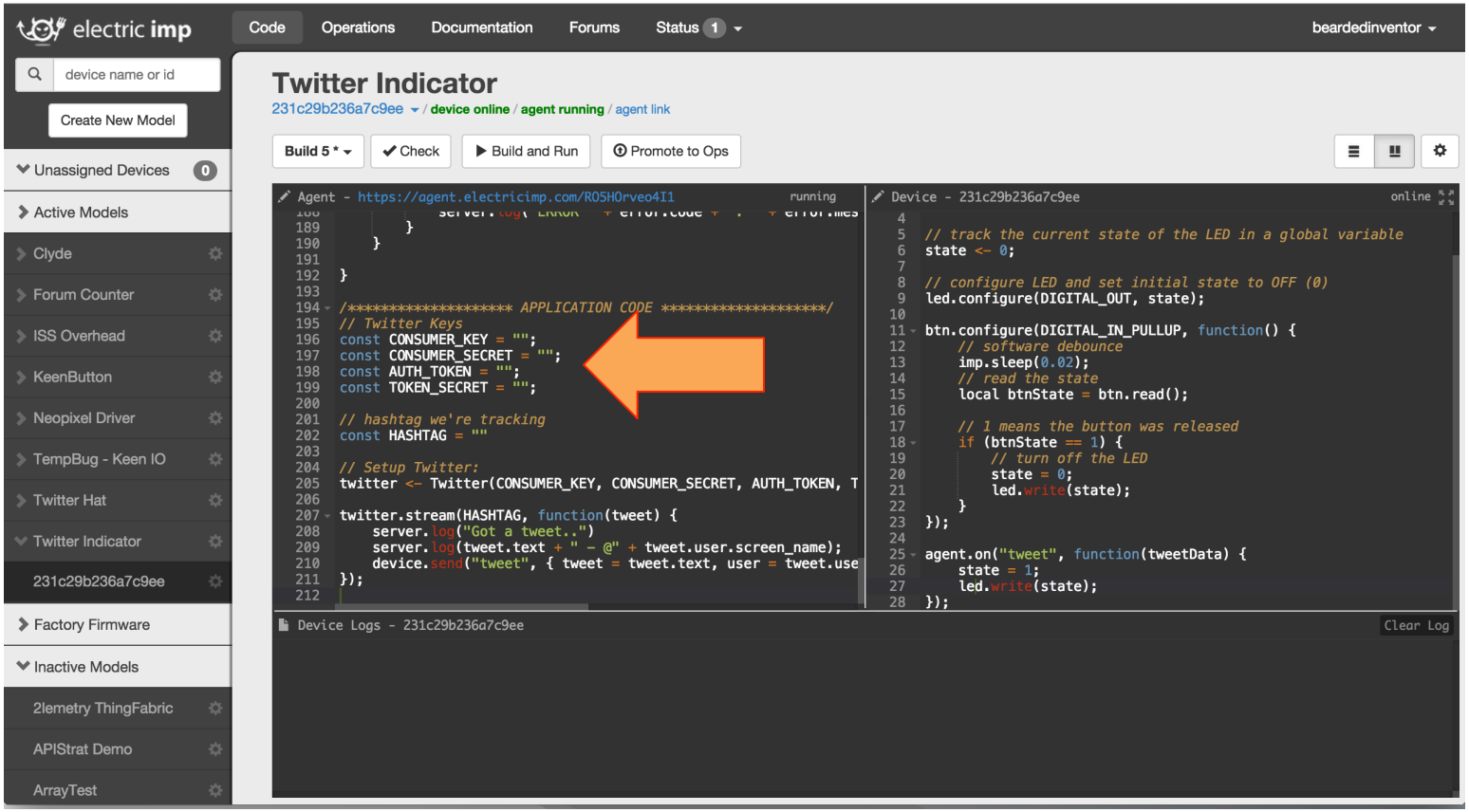
https://github.com/beardedinventor/hackbright2k15/tree/master/twitter

1) Copy the code in twitter.device.nut into the **device editor**
2) Copy the code in twitter.agent.nut into the **agent editor**

3) Setup your Twitter application
4) Copy the required tokens into your code

5) Hit 'Build and Run' and try tweeting with your tracked term to see what does

Example 3 – Twitter Indicator



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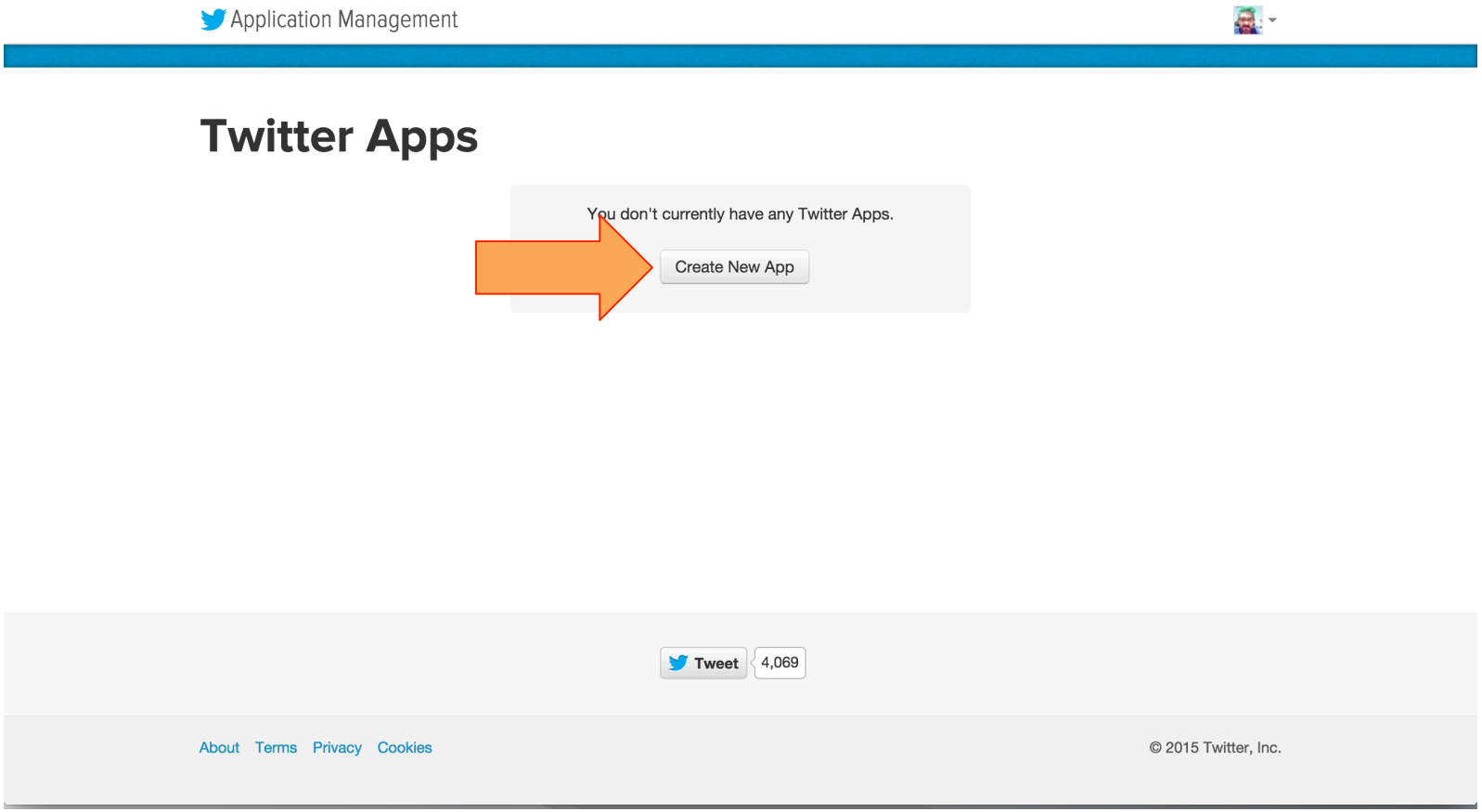
http://apps.twitter.com



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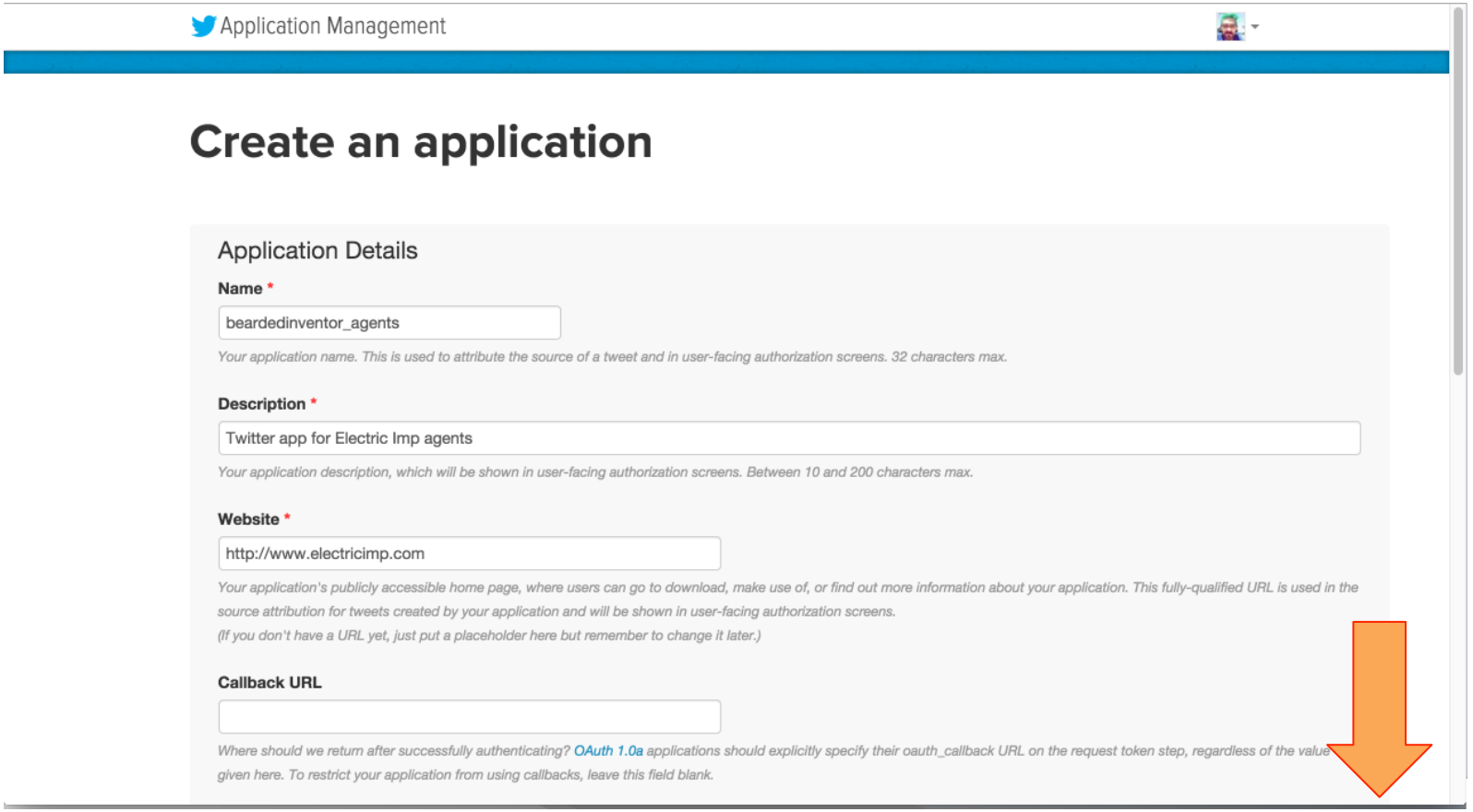

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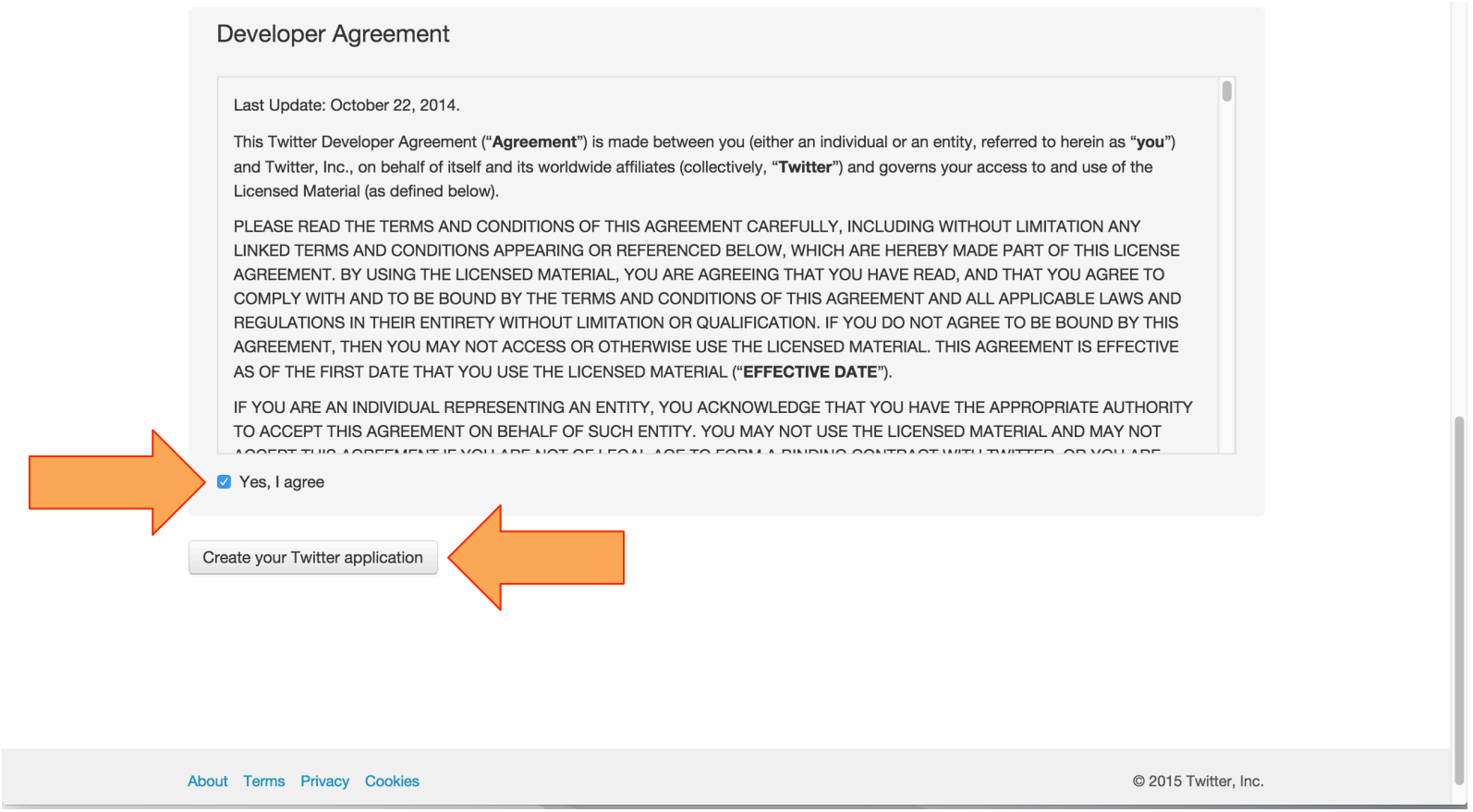

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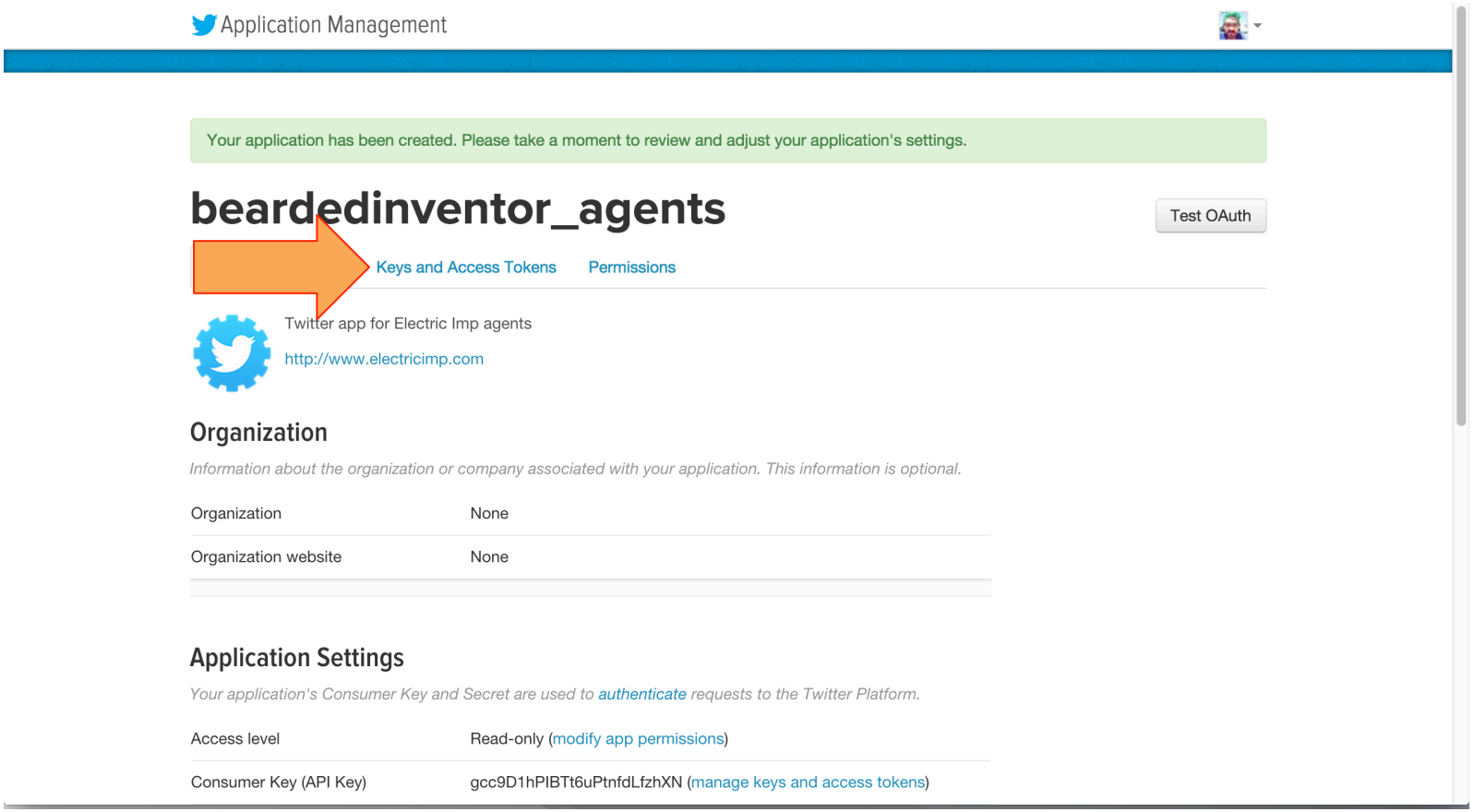

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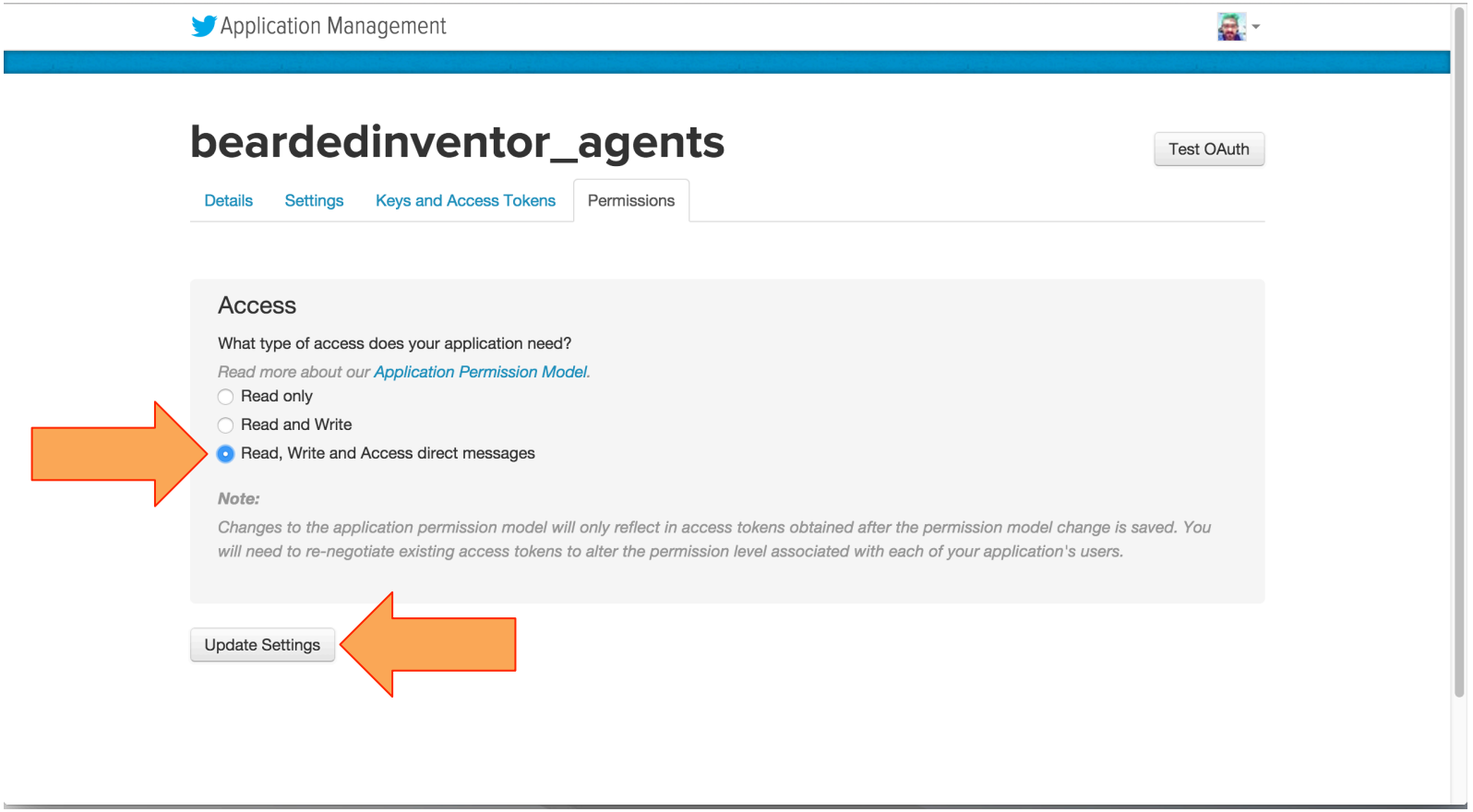

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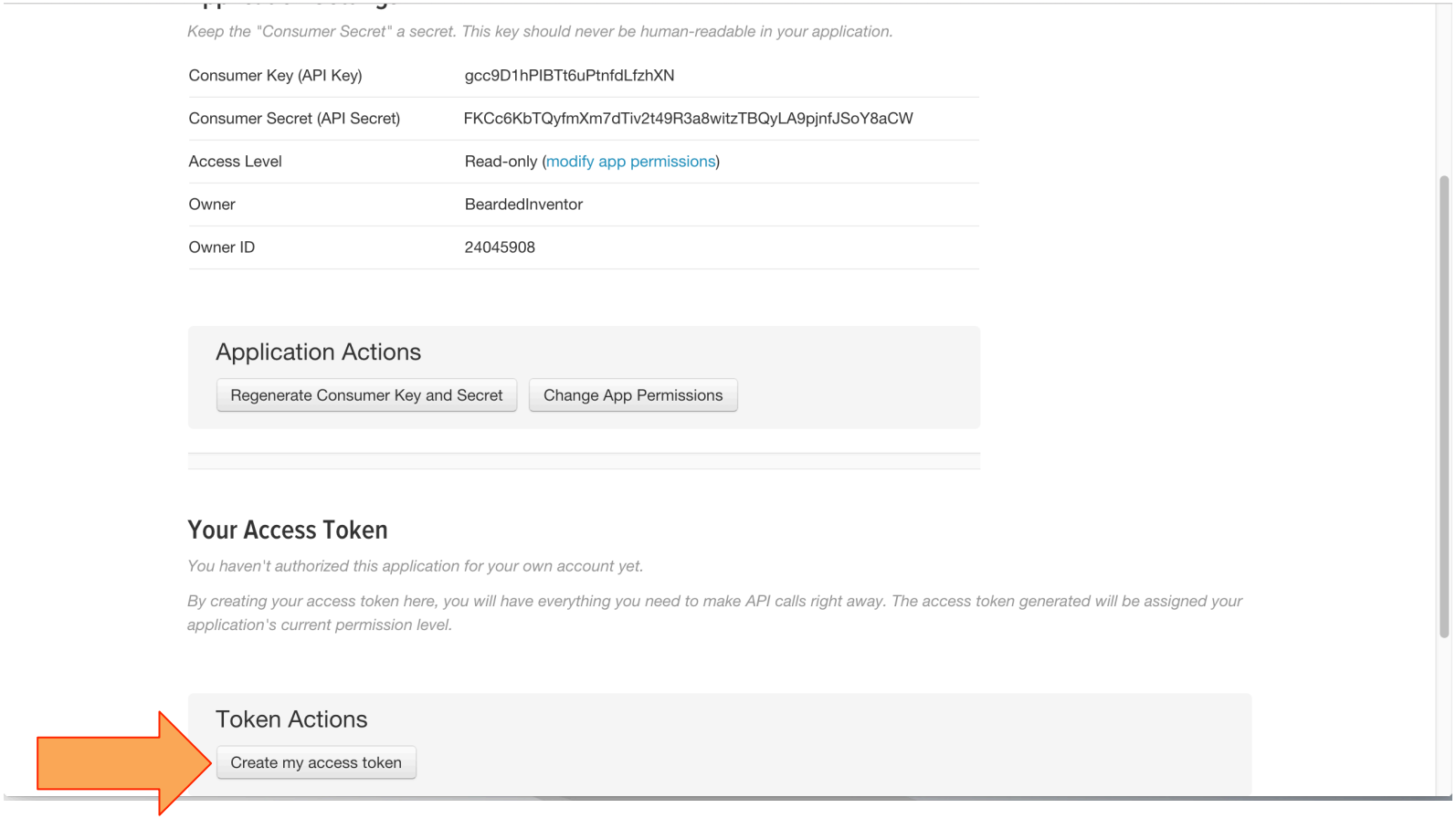

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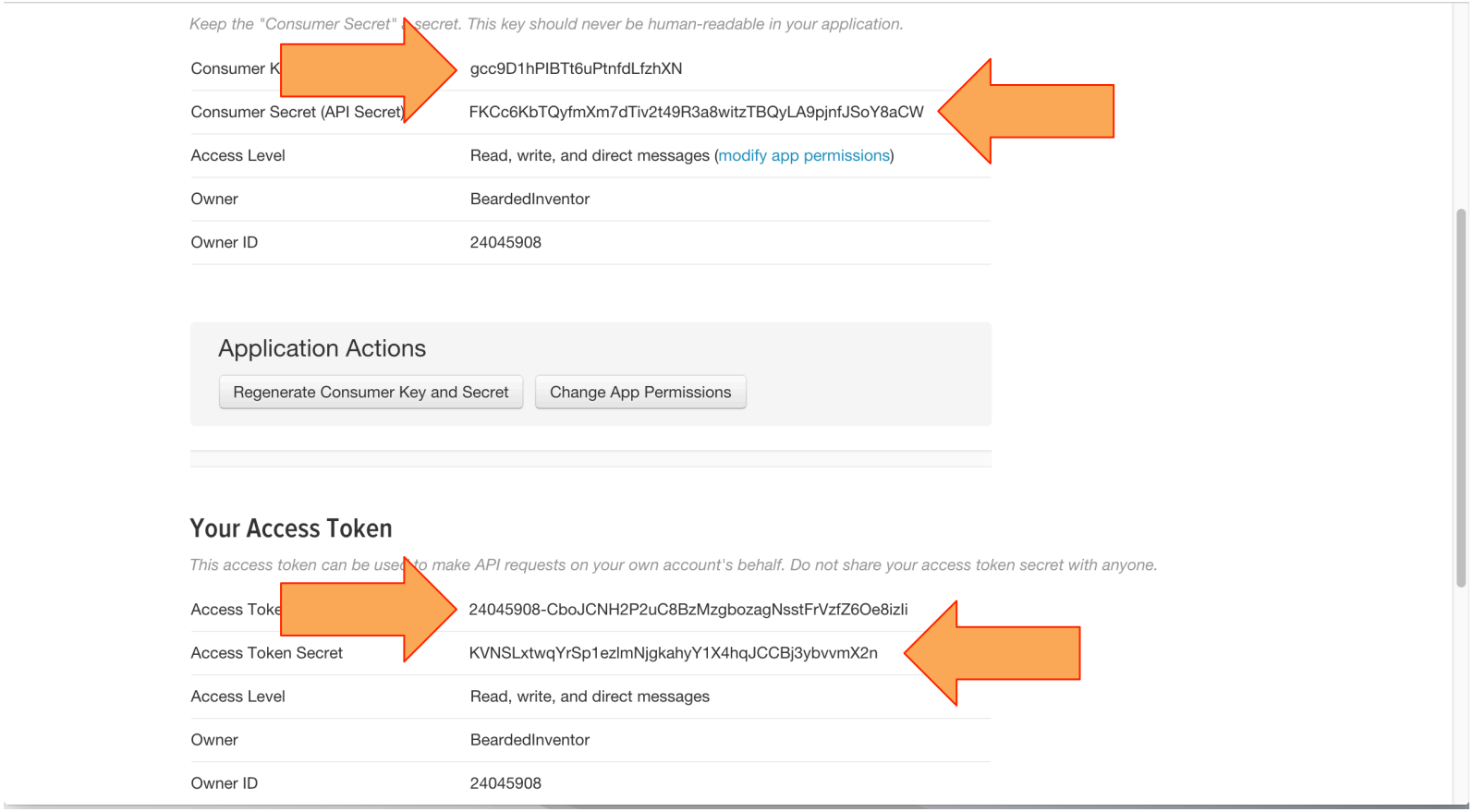

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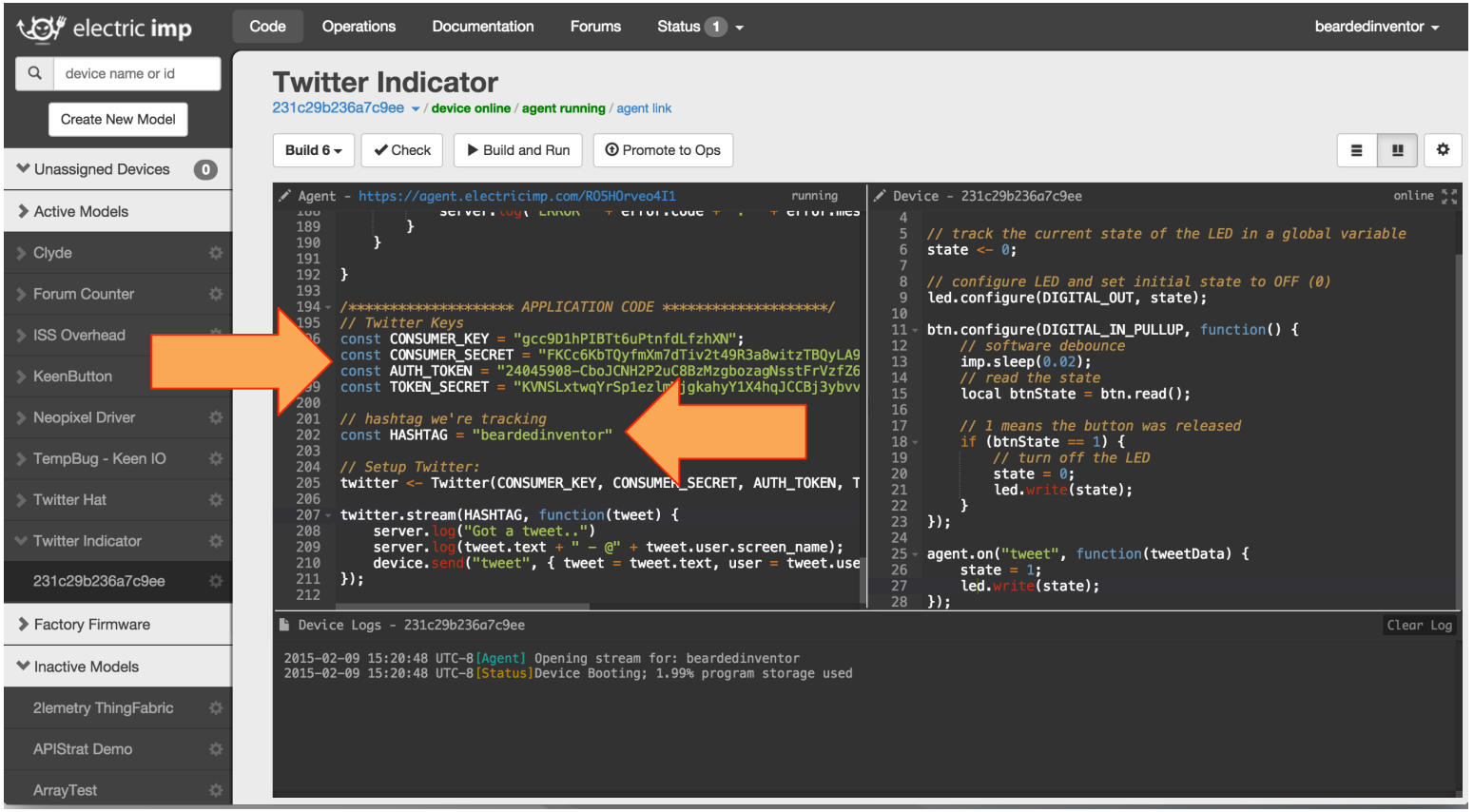

Take home project - TempBug

TempBug + SparkFun Data

instructables.com/id/TempBug-internet-connected-thermometer

Follow the circuit wiring diagram

- Ignore the battery clip and capacitor if you're powering with USB
- To build the battery version you'll need a soldering iron, so check out a local hackerspace!!

Additional Resources

Getting Started	electricimp.com/docs/gettingstarted
API Docs	electricimp.com/docs/api
Squirrel Docs	electricimp.com/docs/squirrel
GitHub	github.com/electricimp
Community Blog	community.electricimp.com
Forums	forums.electricimp.com

Questions?