

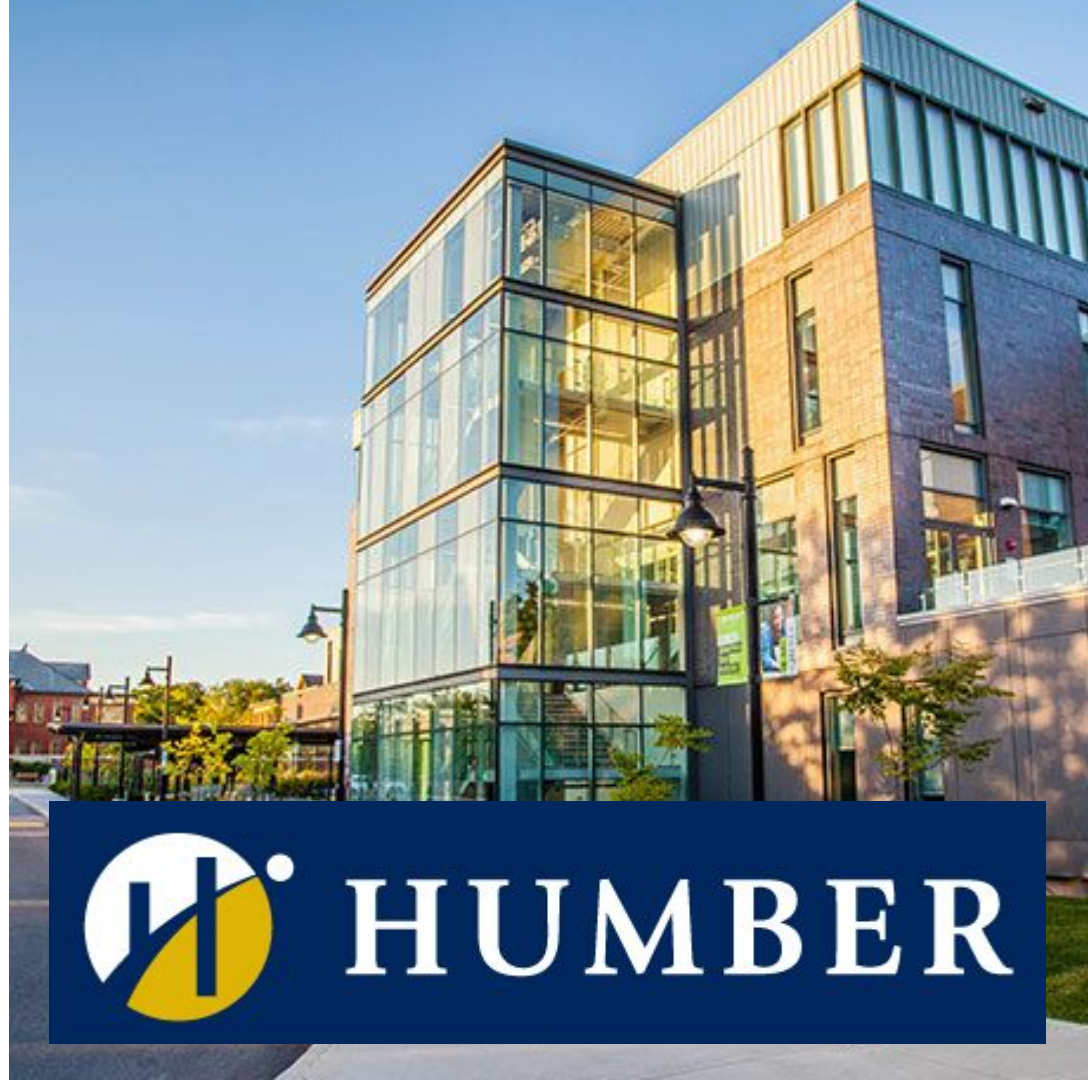
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HUMBER

Lighting

Functionality

Lights will be connect to EV4 or Spike Hubs.
Lights will be controlled by the admin.



The LEGO Group. (n.d.). Dagobah™ Jedi™ Training Diorama. Retrieved 2022, from <https://www.lego.com/en-ca/product/dagobah-jedi-training-diorama-75330>.

Dependency

This system will not be dependant
any other system.

Other systems may use this
system to incorporate lighting.

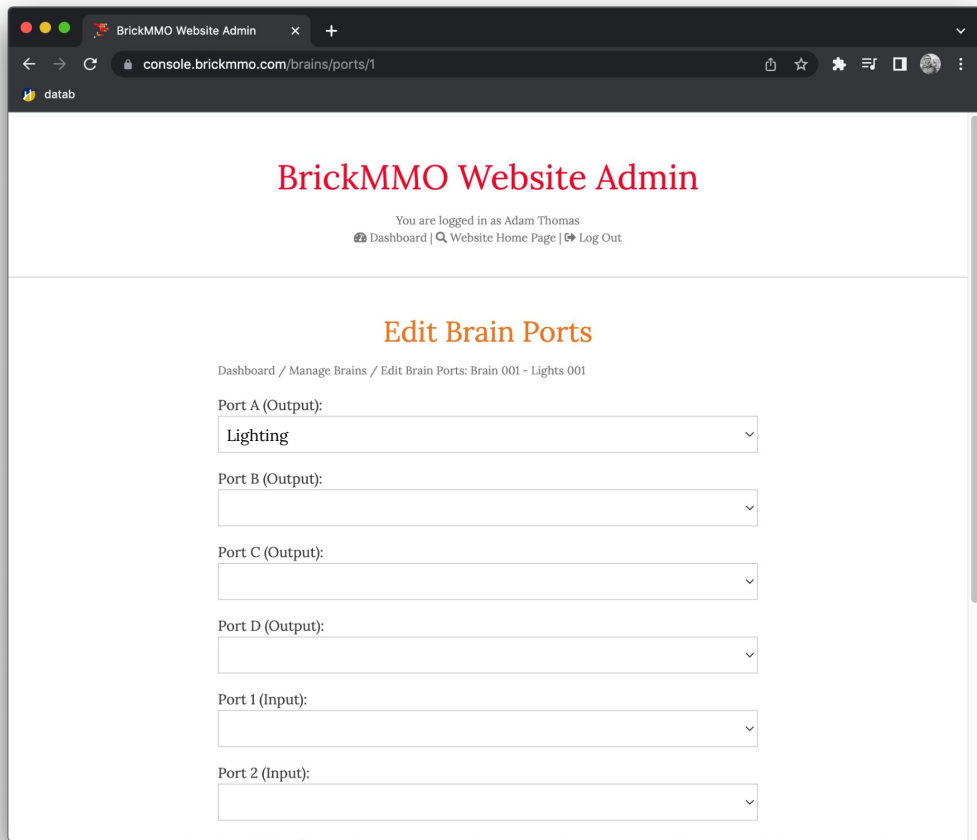


The LEGO Group. (n.d.). Boutique Hotel. Retrieved 2022, from <https://www.lego.com/en-ca/product/boutique-hotel-10297>.

3. Settings and Info

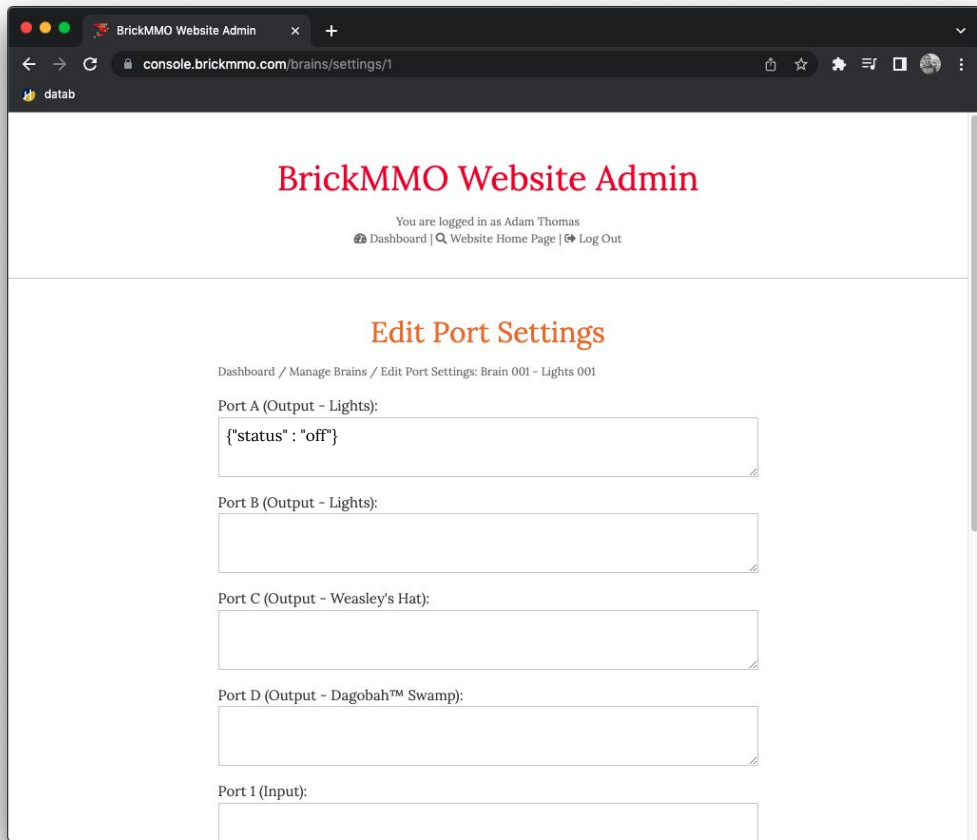
Module: Lighting

The Lighting module can be connected to as many sports as needed.



Module Settings

Lights can be set to on off.
When on all lights connected to
the port will be turned on.



The screenshot shows a web browser window with the title 'BrickMMO Website Admin'. The address bar shows the URL 'console.brickmmo.com/brains/settings/1'. The page content includes a header with the title 'BrickMMO Website Admin' and a login status 'You are logged in as Adam Thomas' with links for 'Dashboard', 'Website Home Page', and 'Log Out'. The main section is titled 'Edit Port Settings' and contains a breadcrumb trail 'Dashboard / Manage Brains / Edit Port Settings: Brain 001 - Lights 001'. Below this, there are five form fields for different ports: 'Port A (Output - Lights):' with a text area containing '{\"status\" : \"off\"}', 'Port B (Output - Lights):', 'Port C (Output - Weasley's Hat):', 'Port D (Output - Dagobah™ Swamp):', and 'Port 1 (Input):'. Each field has a small icon in the bottom right corner.

BrickMMO Website Admin

You are logged in as Adam Thomas
[Dashboard](#) | [Website Home Page](#) | [Log Out](#)

Edit Port Settings

[Dashboard](#) / [Manage Brains](#) / [Edit Port Settings: Brain 001 - Lights 001](#)

Port A (Output - Lights):

Port B (Output - Lights):

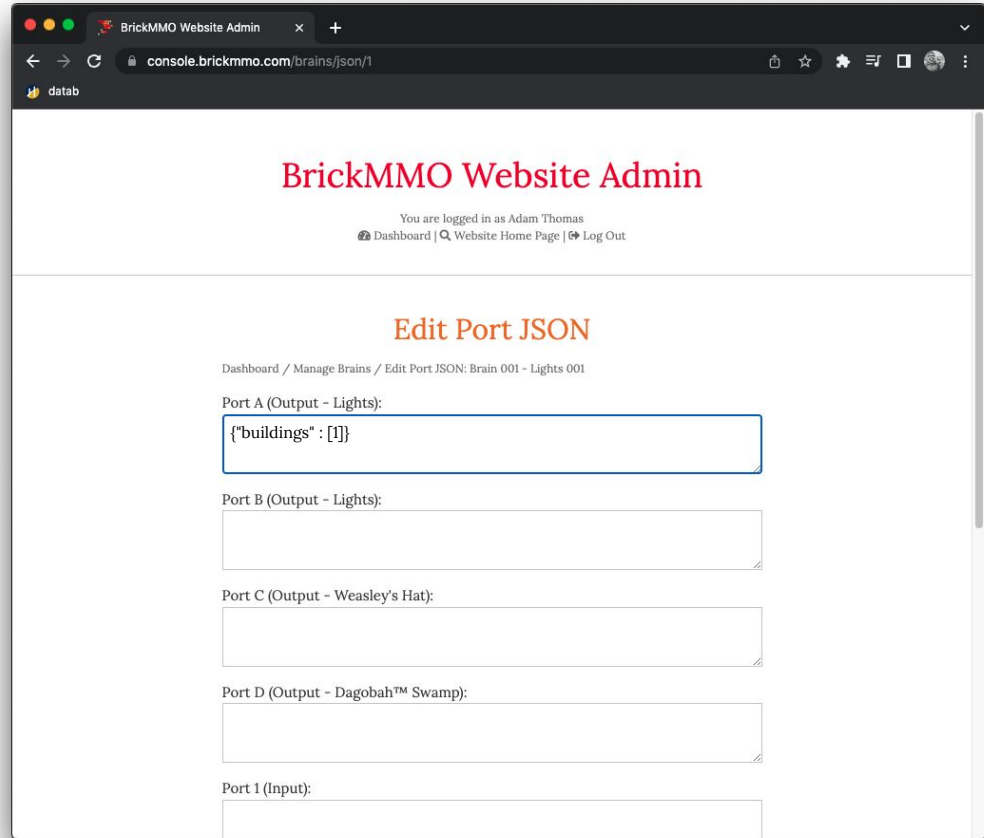
Port C (Output - Weasley's Hat):

Port D (Output - Dagobah™ Swamp):

Port 1 (Input):

Module JSON

Additional information will include
a list of buildings connected to
the specified port.



The screenshot shows a web browser window with the title 'BrickMMO Website Admin'. The address bar shows the URL 'console.brickmmo.com/brains/json/1'. The page content includes a header with the title 'BrickMMO Website Admin' and a user login status 'You are logged in as Adam Thomas'. Below the header, there is a navigation bar with links: 'Dashboard | Q Website Home Page | Log Out'. The main content area is titled 'Edit Port JSON' and shows a breadcrumb trail: 'Dashboard / Manage Brains / Edit Port JSON: Brain 001 - Lights 001'. The page contains five text input fields for editing JSON data:

- Port A (Output - Lights): `{"buildings" : [1]}`
- Port B (Output - Lights):
- Port C (Output - Weasley's Hat):
- Port D (Output - Dagobah™ Swamp):
- Port 1 (Input):

4. Ports, Motors, and Settings

Sensors and Motors

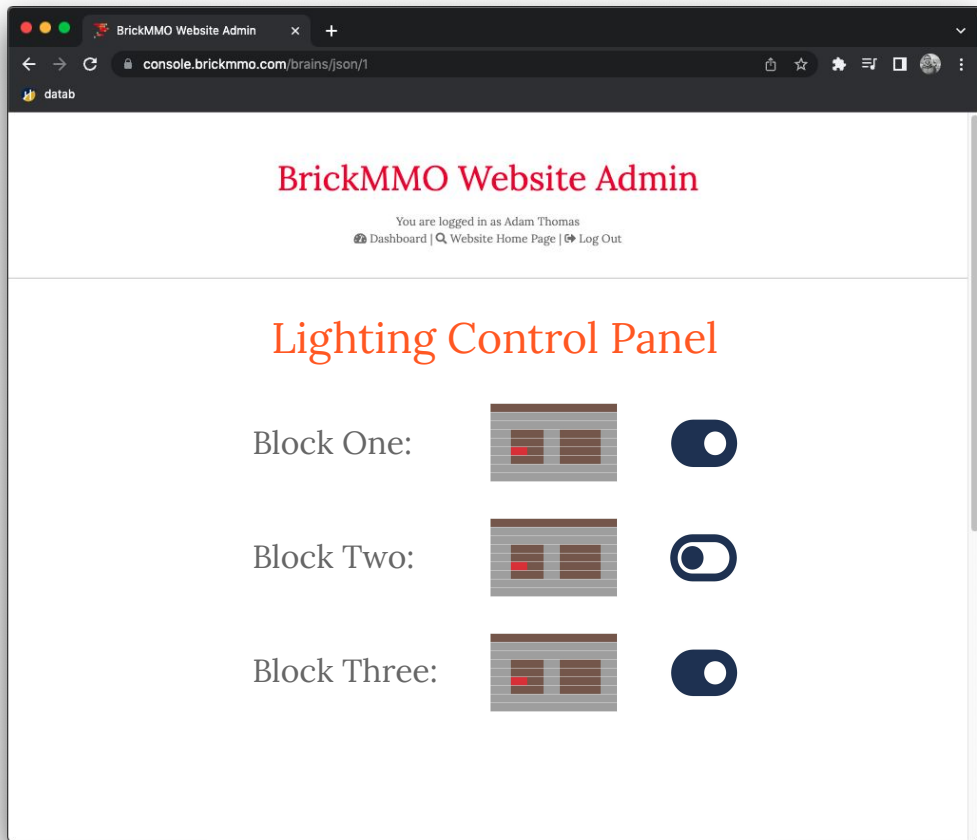
Power function lights will be connected to EV3 Hubs using converters.



Admin Control Panel

Admin will have a control panel
listing all lights and their current status.

Lights could have different types:
on/off, flicker, fade, blink, etc..



5. Pseudocode

IOT Loop

While True

 If status == "on"

 Set lights port to 100

 Else if status == "off"

 Set lights port to 0



The LEGO Group. (n.d.). Diagon Alley™. Retrieved 2022, from <https://www.lego.com/en-ca/product/diagon-alley-75978>.

API Endpoints

`/api/brain/{id}`

Will return a list of what module each port is set too, settings JSON, and addition information JSON.



The LEGO Group. (n.d.). Diagon Alley™. Retrieved 2022, from <https://www.lego.com/en-ca/product/diagon-alley-75978>.