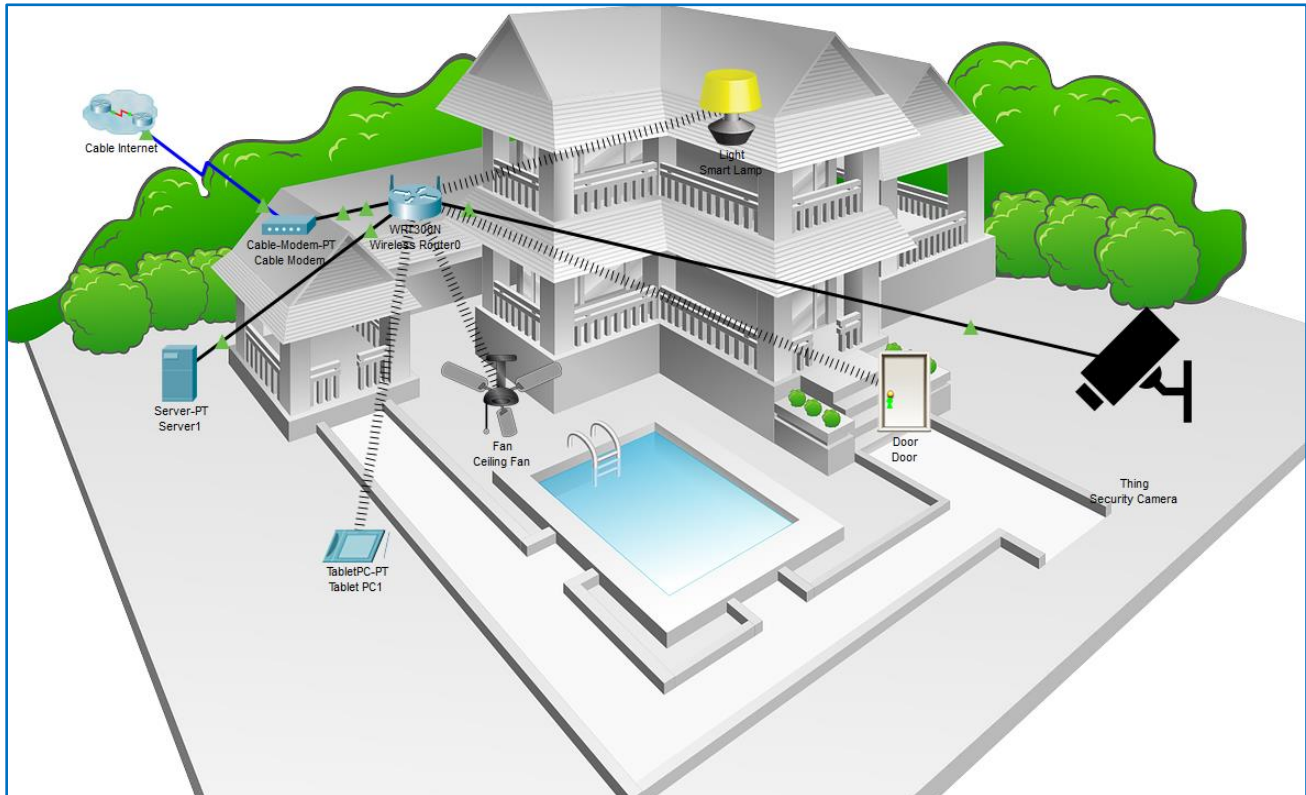


Packet Tracer – Modify Your Thing

The Smart Home Network



Objectives

Part 1: Modify Your Thing

Part 2: Test Modified Thing

Background / Scenario

In this activity you will modify the security camera IoT device created in the previous activity.

Part 1: Modify Your Thing

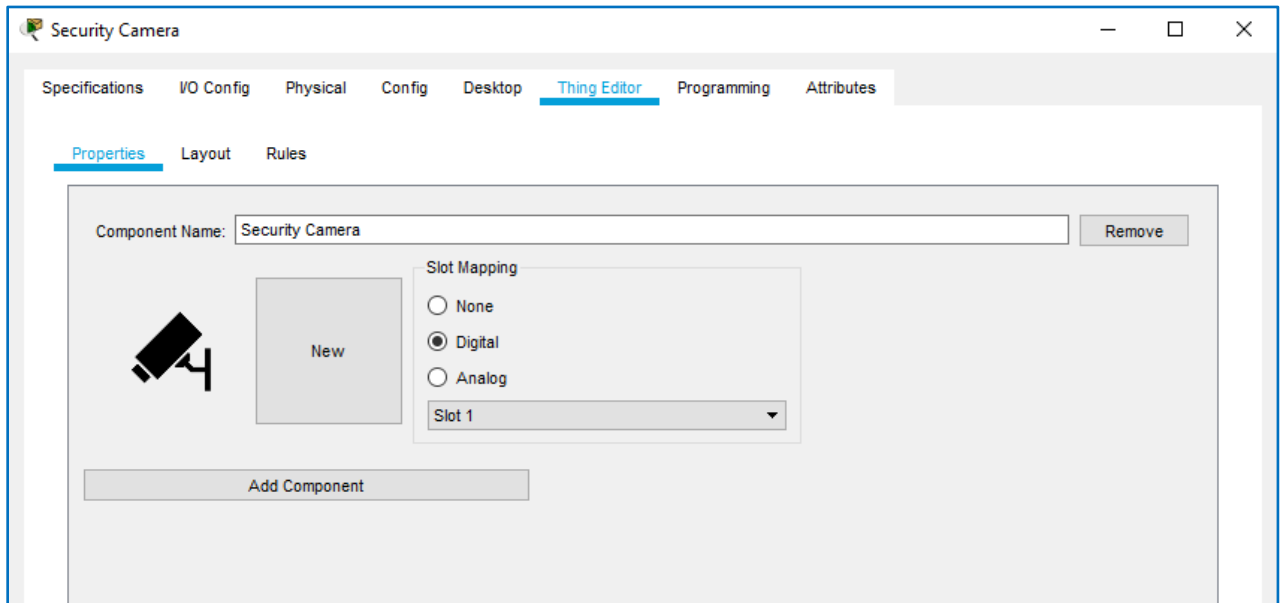
Step 1: Open the Modify Your Thing.pkt file and save the file to your computer.

Add an additional device icon.

Select the **Security Camera** on the Packet Tracer workspace to open the device configuration window.

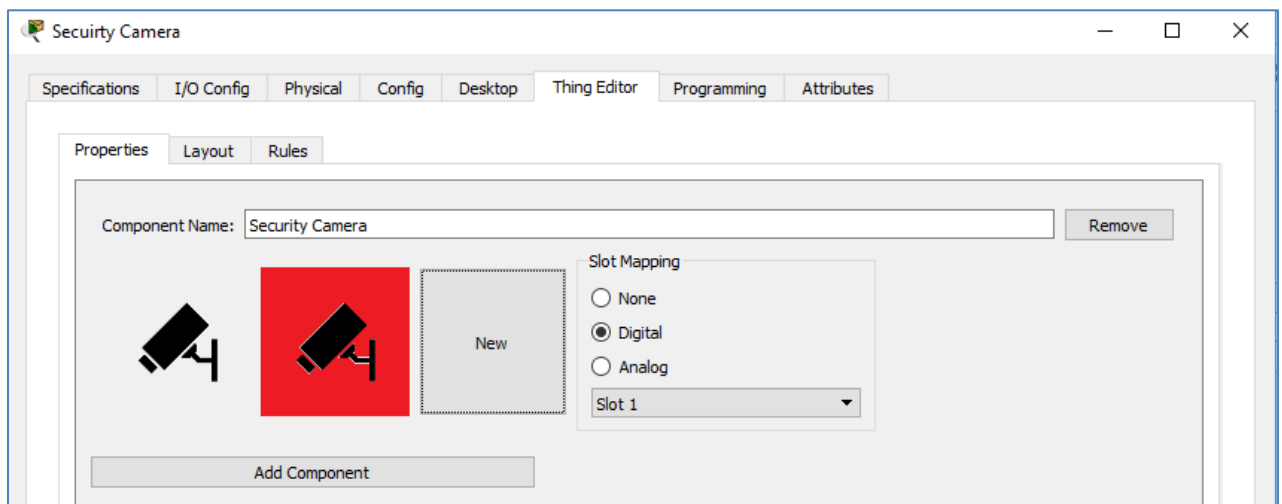
Packet Tracer – Modify Your Thing

Click on **Advanced** button in the bottom right of the device configuration window, then click on the **Thing Editor** tab, and then the **Properties** tab.



Click on the **New** button.

A pane will open allowing you to browse for a new icon. Select a different image for the security camera for when it is activated.



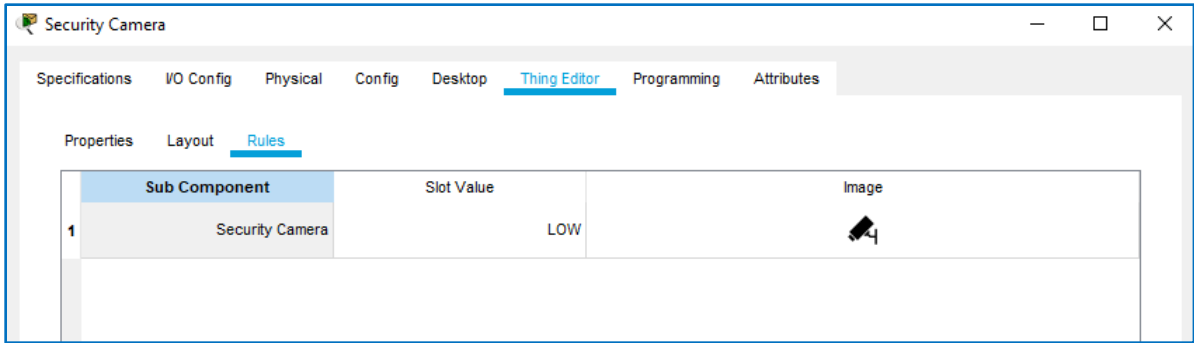
Next, click on the **Rules** tab.

Then, click the **Add Component** button.

Click in the **Sub Component** column and select Security Camera in the drop down menu.

The **Slot Value** should change to LOW and the **Image** should show the security camera image that will be used as the icon when the camera is deactivated.

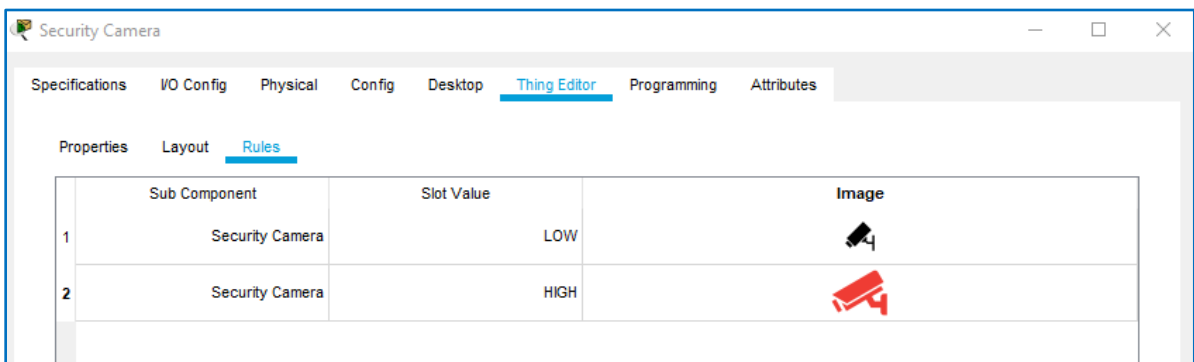
Packet Tracer – Modify Your Thing



Click the **Add** button again.

Click in the **Sub Component** column and select Security Camera in the drop down menu.

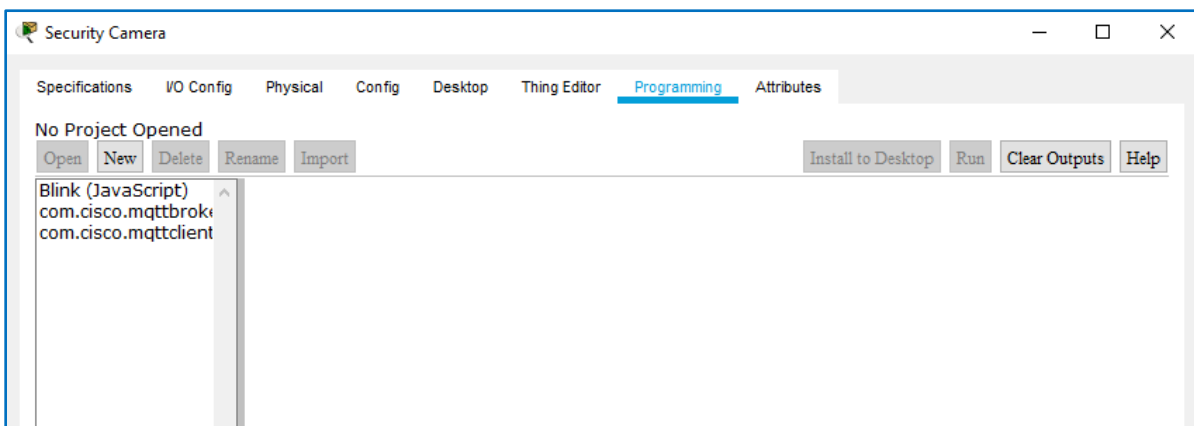
Click in the **Slot Value** column and select **HIGH** and click in the **Image** column and select the second security camera image that will be used as the activated icon.



Step 3: Copy programming code to the security camera.

- View the existing programming code.

Click on the **Programming** tab.



Notice that there is no code yet for the device.

Minimize the **Security Camera** configuration window.

Packet Tracer – Modify Your Thing

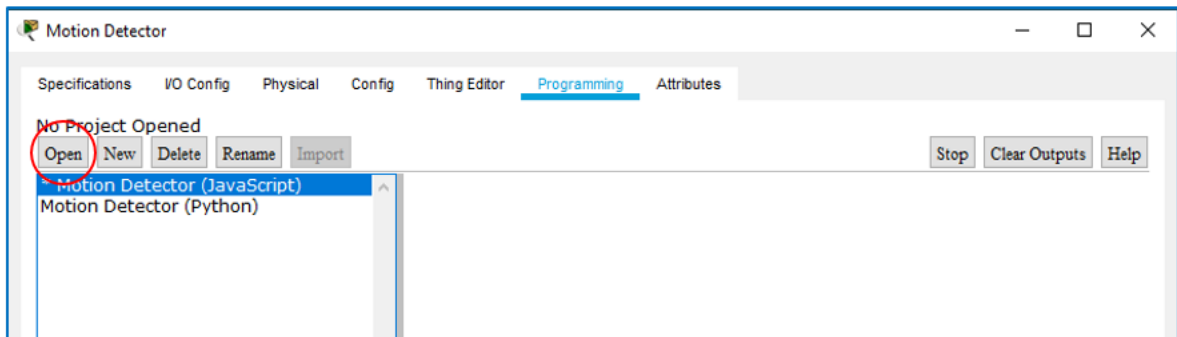
- b. Copy code from existing Packet Tracer IoT device.

Add the **Motion Detector** IoT device to the Packet Tracer Workspace.

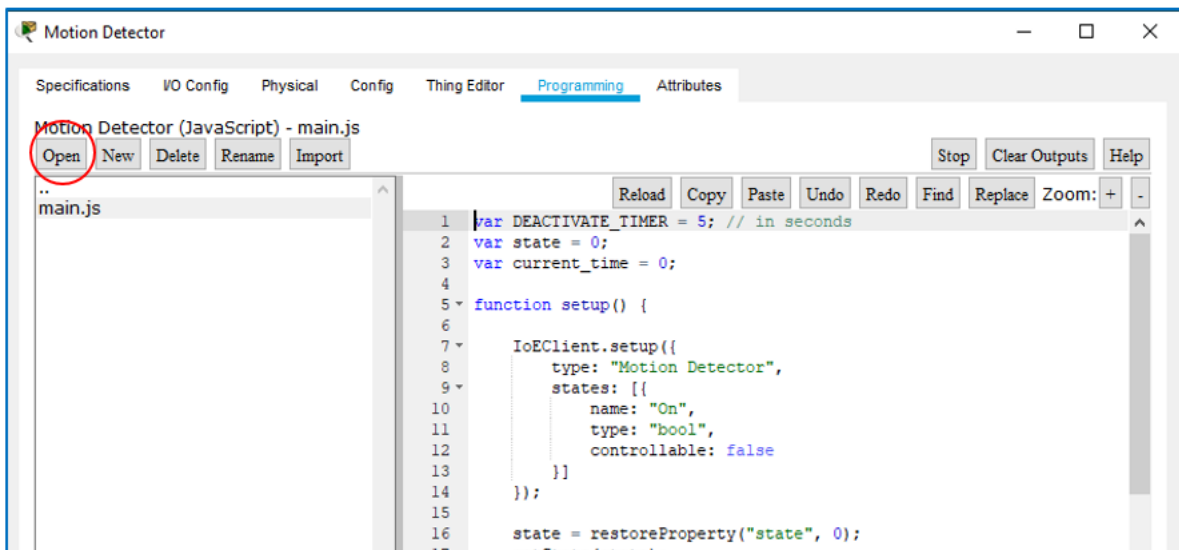


Click on the **Motion Detector** to open the device configuration window, click on the **Advanced** button, then click on the **Programming** tab.

In the **Programming** tab, click on **Motion Detector (JavaScript)** in the left pane and click **Open**.

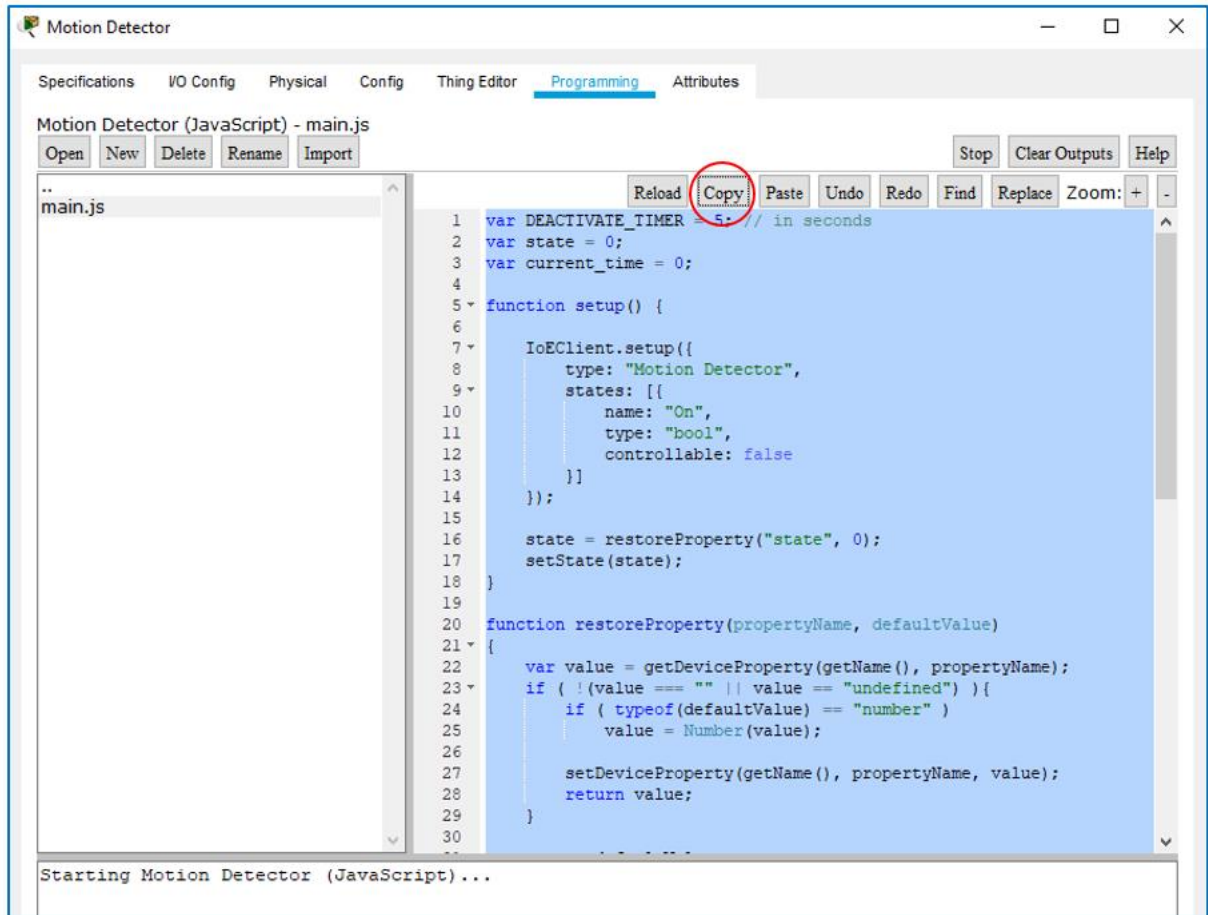


Then click on **main.js** in the left pane and click **Open**. This opens the code associated with the Motion Detector in the code edit pane to the right.



To select all the programming script, click in the code edit pane and type **Ctrl+A** on the keyboard. Once all the script is selected, click **Copy** in the code edit pane menu.

Packet Tracer – Modify Your Thing



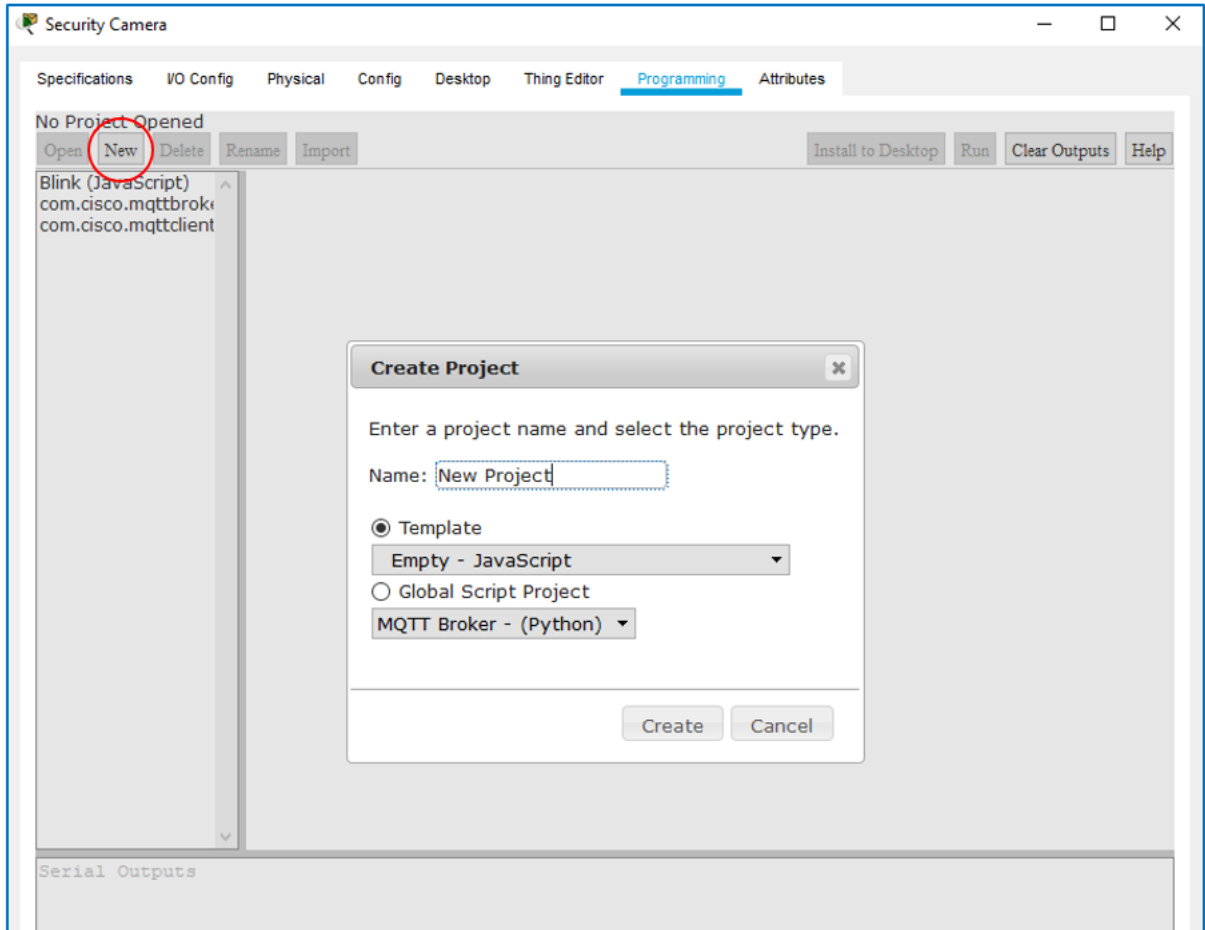
Close the **Motion Detector** configuration window.

- c. Paste the copied code to the security camera IoT device.

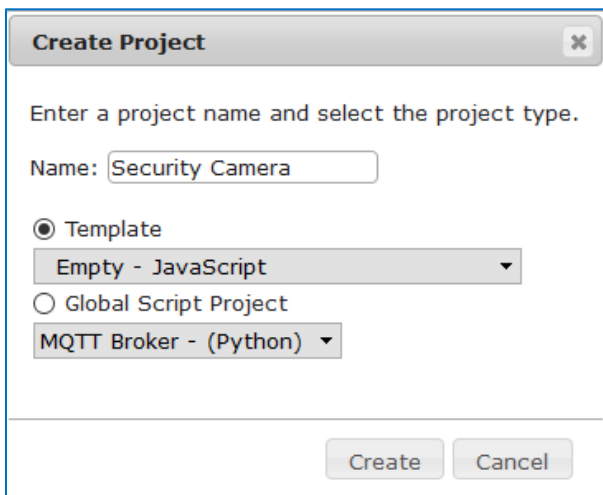
Re-open the **Security Camera** window and select the **Programming** tab if not already selected.

Click the **New** project button above the left pane. This opens the **Create Project** window.

Packet Tracer – Modify Your Thing

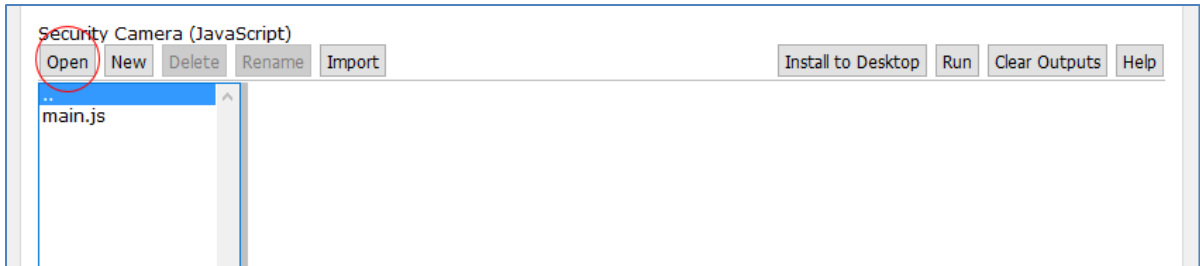


In the **Create Project** window, create a new programming project named Security Camera by typing Security Camera in the **Name** box and clicking **Create**.

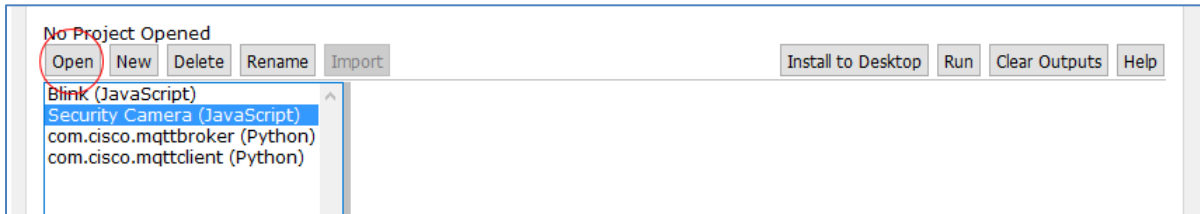


To view the new project just created, click on the .. in the left pane and click **Open**.

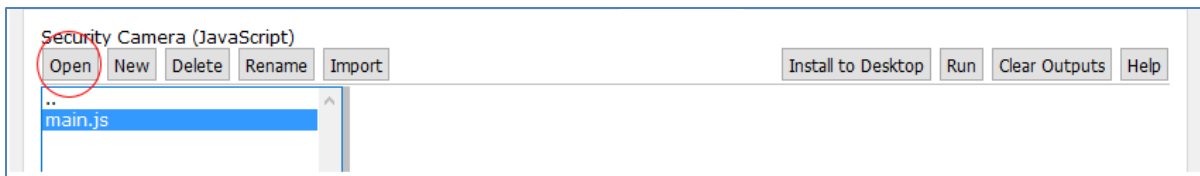
Packet Tracer – Modify Your Thing



Notice there is now a Security Camera (JavaScript) project in the left pane. Click on **Security Camera** project and click **Open**.

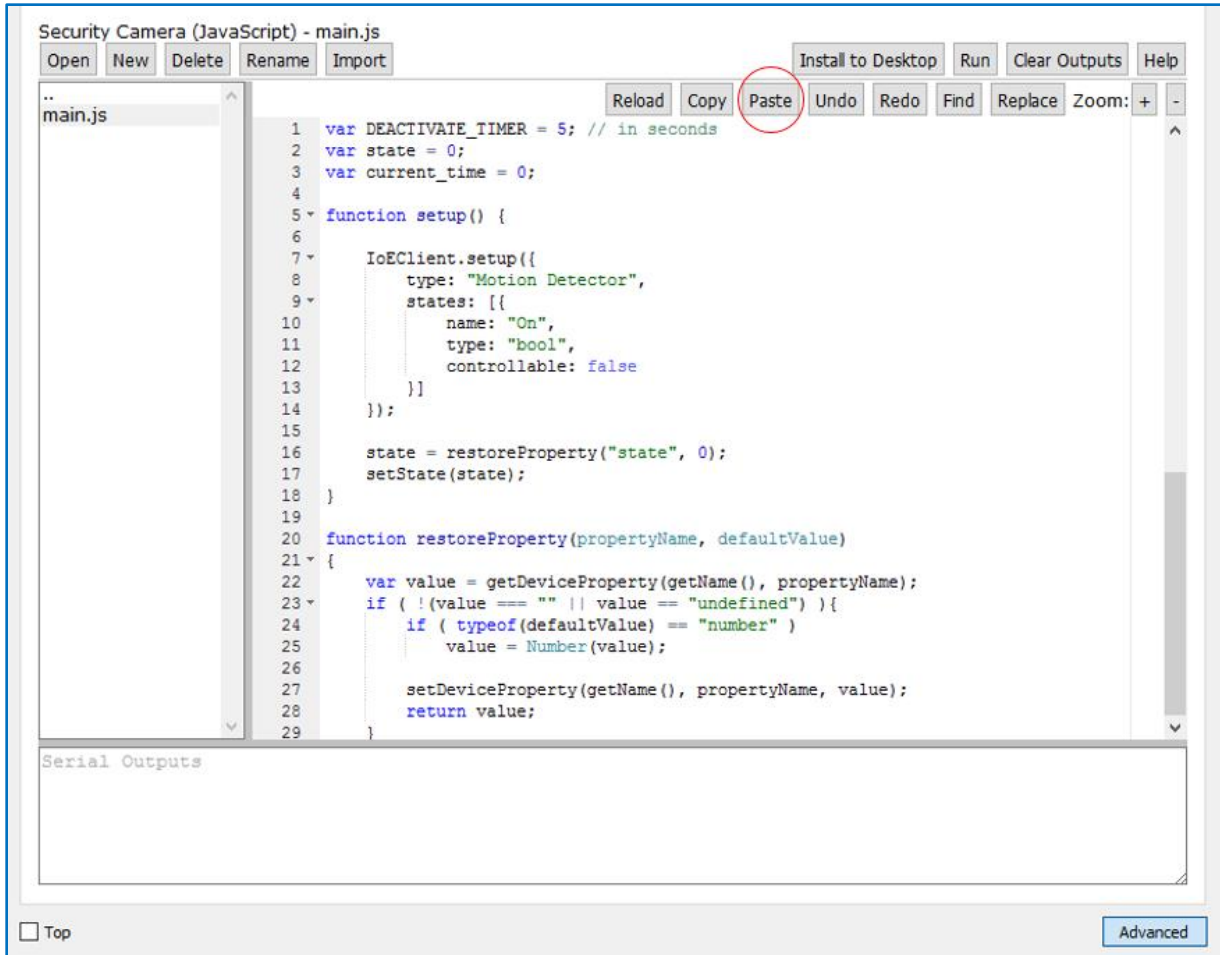


Now click **main.js** and click **Open**.



You can now paste the copied code from the Motion Detector into the code edit pane on the right. Click in the code edit pane and click on the **Paste** button to paste in the copied code.

Packet Tracer – Modify Your Thing



Step 4: Edit the security camera programming code

The code copied from the **Motion Detector** needs to be edited to change the type to Security Camera. Click on the line that identifies the device and change the name. In this instance it is line 8.

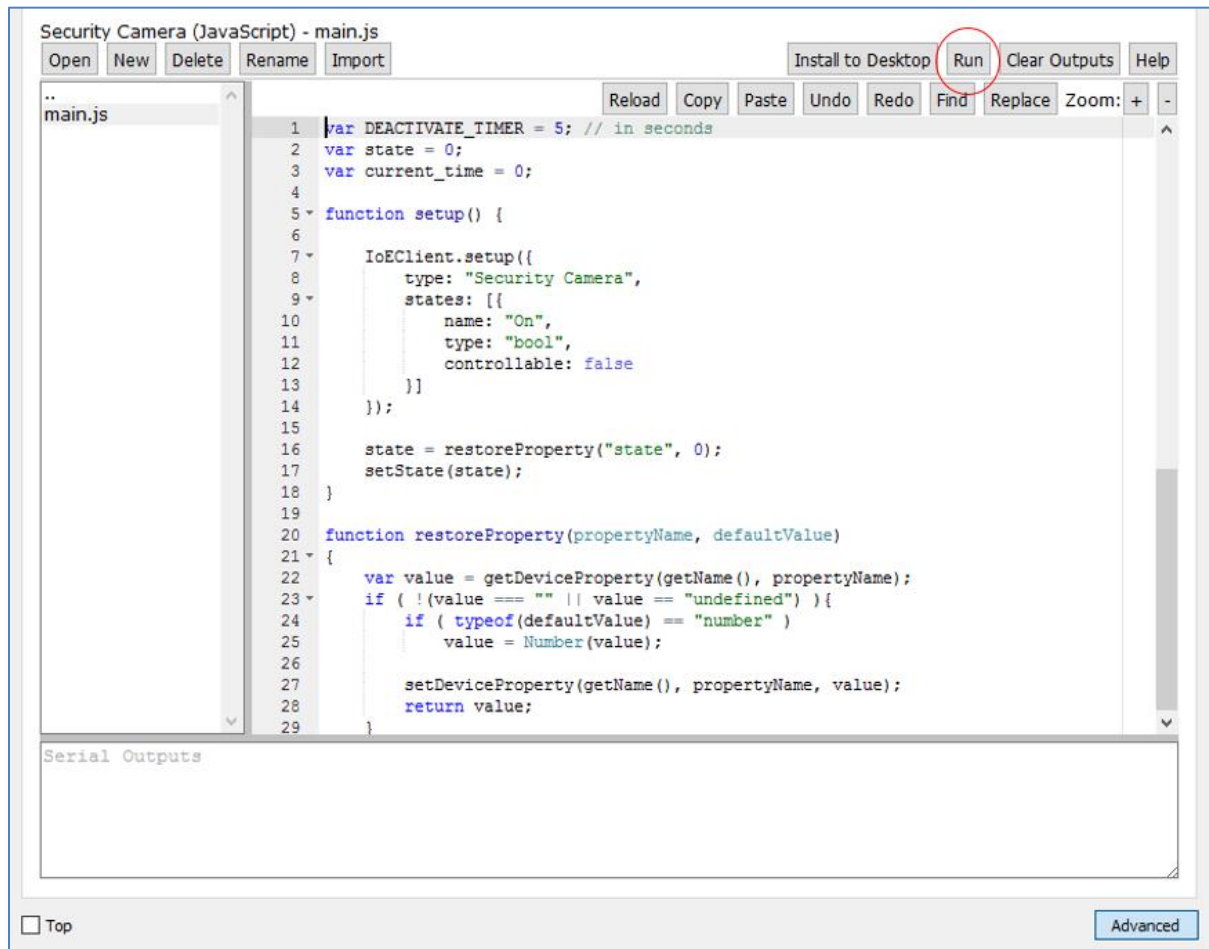
```
7 IoEClient.setup({
8     type: "Motion Detector",
9     states: [{
10        name: "On",
11        type: "bool",
12        controllable: false
13    ]
14 }
```

Change "Motion Detector" to "Security Camera"

```
7 IoEClient.setup({
8     type: "Security Camera",
9     states: [{
10        name: "On",
11        type: "bool",
12        controllable: false
13    ]
14 }
```


Packet Tracer – Modify Your Thing

Run the program by clicking on the **Run** button.



Close the Security Camera configuration window.

Part 2: Test Modified Thing

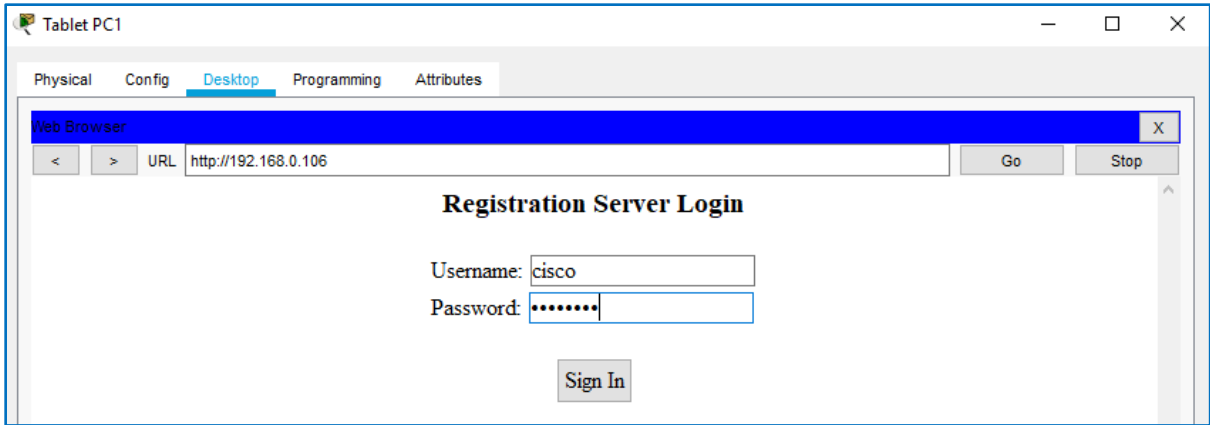
Step 1: Access the Registration Server from the Tablet PC.

Click on the Tablet-PC to open the configuration window. Click on the **Desktop** tab, and select the **Web Browser** icon.

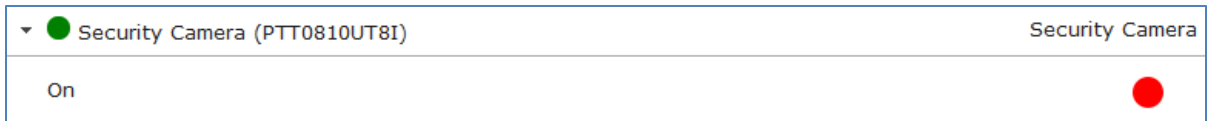
In the web browser pane type in the URL of the registration server 192.168.0.106 and click **Go**. In the Registration Server Login pane type in the following credentials and click **Sign In**.

Username: cisco

Password: cisco123



In the **IoTServer-Devices** pane click on the **Security Camera** to expand the device information. Notice the **Security Camera** is **On** but not activated.

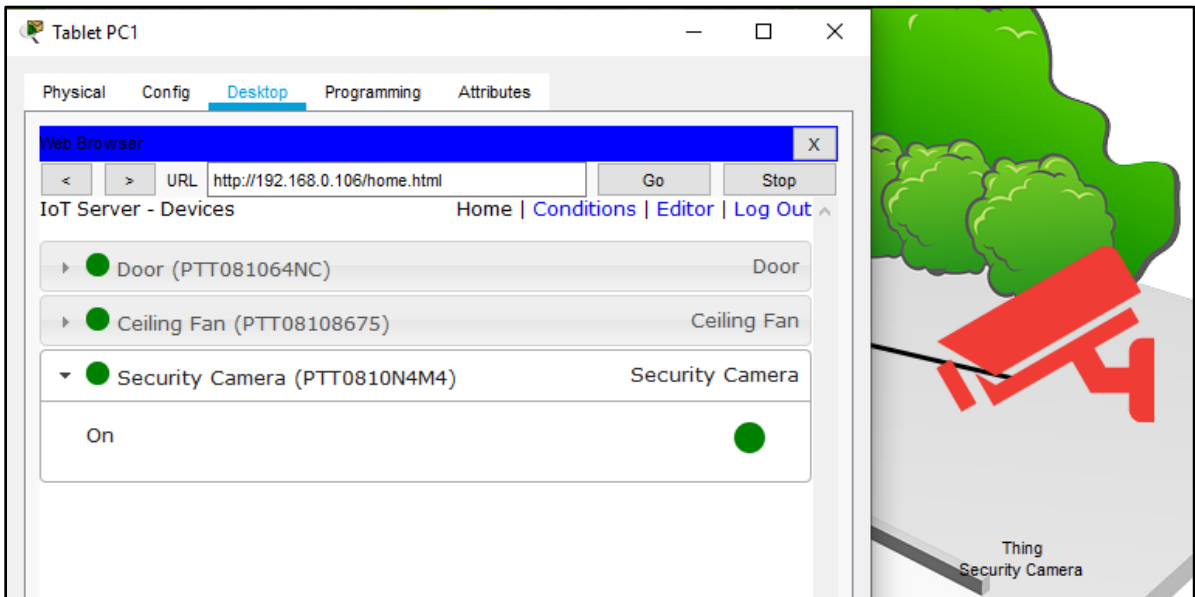


Step 2: Activate the Security Camera.

Move the **Tablet PC1** configuration window out of the way but still visible so that the Packet Tracer workspace is visible.

Hold down the **Alt** key on the keyboard and move the mouse cursor over the **Security Camera** icon.

Notice that the icon will change to the image used as the activated icon and the Security Camera status changes to activated as indicated by the green dot in the Server-Devices list on the Registration Server.



Step 3: Experiment.

Experiment by adding other types of IoT devices and editing the programming of those devices to perform different functions.

Step 4: Close Packet Tracer.