



HCA Tech Note 713

Aqara FP2 Presence Sensor Integration with HCA using Amazon Alexa and Hubitat

While motion sensors can be very useful for turning on lights when someone enters a room, the problem with them is knowing when the room is vacant so that the lights can be turned off. Someone may be sitting in a room and the motion sensor is useless for detecting their presence.

Until recently there weren't really any available sensors that could detect the presence of someone when they weren't moving around. However, there is now a sensor that can detect the presence of someone by utilizing millimeter radio wave technology. This sensor is the Aqara FP2 and it is available from Amazon for less than \$85. (Note this sensor *must* be powered from a wall outlet.) The Aqara device(s) will appear in the Alexa app when the Aqara Home skill is added to that app. By creating a program in HCA that uses generic ON and OFF triggers and that has a friendly name, that generic app/device will appear in Hubitat when a Get Devices is done in the HCA app on Hubitat. You will also need to add the device/friendly name of the program to the Amazon Echo Skill app in Hubitat.

The example below shows how to create an HCA program called "Presence Sensor Report Handler" with the friendly name of "Presence Sensor" and have the Aqara sensor trigger that program via Alexa and Hubitat.

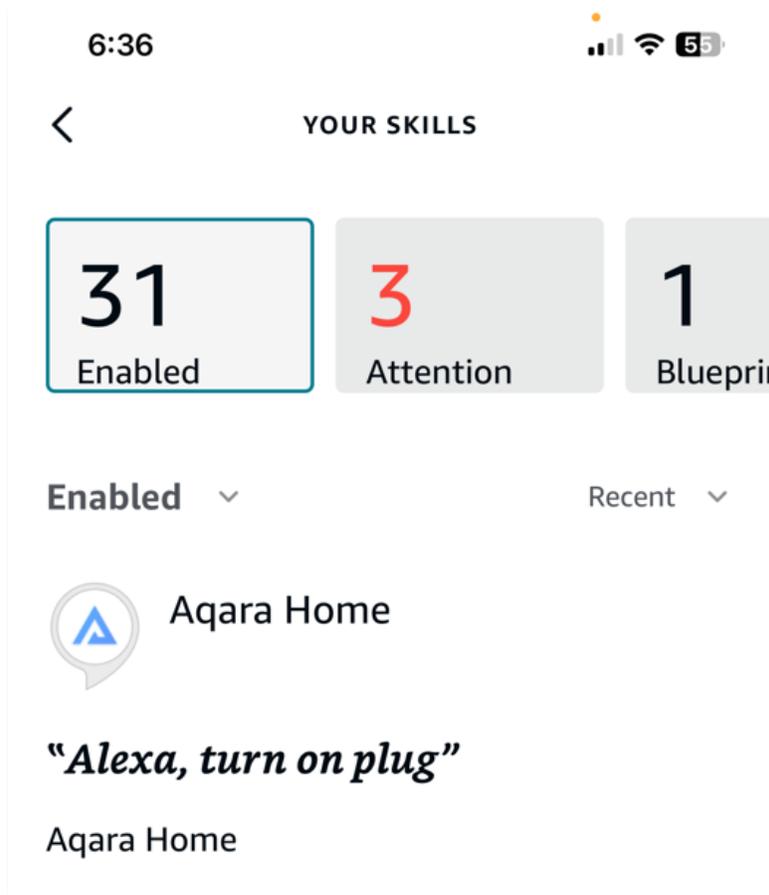
The first step is to setup the Aqara sensor using the Aqara phone app.

The sensor can be setup to detect presence/no presence, and the Aqara app is also capable of setting up multiple zones within the sensor's detection area, *each of which* can function as a virtual presence sensor. If multiple zones are setup, each zone will appear as a separate device in the Alexa app. For simplicity, the example here will only setup the sensor to detect presence/no presence.

The second step is to add the Aqara skill to the Alexa app. The Aqara device(s) will appear in Alexa once the Aqara skill is added to Alexa. The figure below shows the Aqara skill added in the iOS Alexa app.



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The third step is to create an HCA Program (in this example "Presence Sensor Report Handler") with generic ON and OFF triggers and a friendly name ("Presence Sensor").

"Aqara - Presence Sensor Report Handler" Properties

Name	Notes	Triggers	Visual Programmer	Advanced Options	Restart	Icon	Display	Log	Schedule	Referenced by	References
Start the program on any of these triggers:											
Trigger										Edit	Delete
Generic Trigger: Started by OFF										Edit	Delete
Generic Trigger: Started by ON										Edit	Delete

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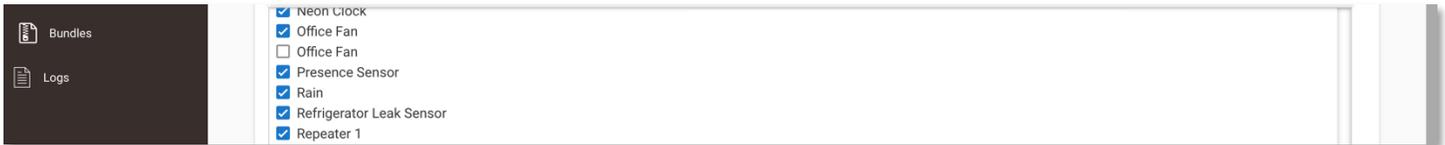


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In the HCA app in Hubitat, turn on the switch “Get Devices from HCA Server” and “Done” to make the Hubitat aware of the device you just created. Here you can see “Presence Sensor” listed as one of the devices and the program “Presence Sensor Report Handler”.



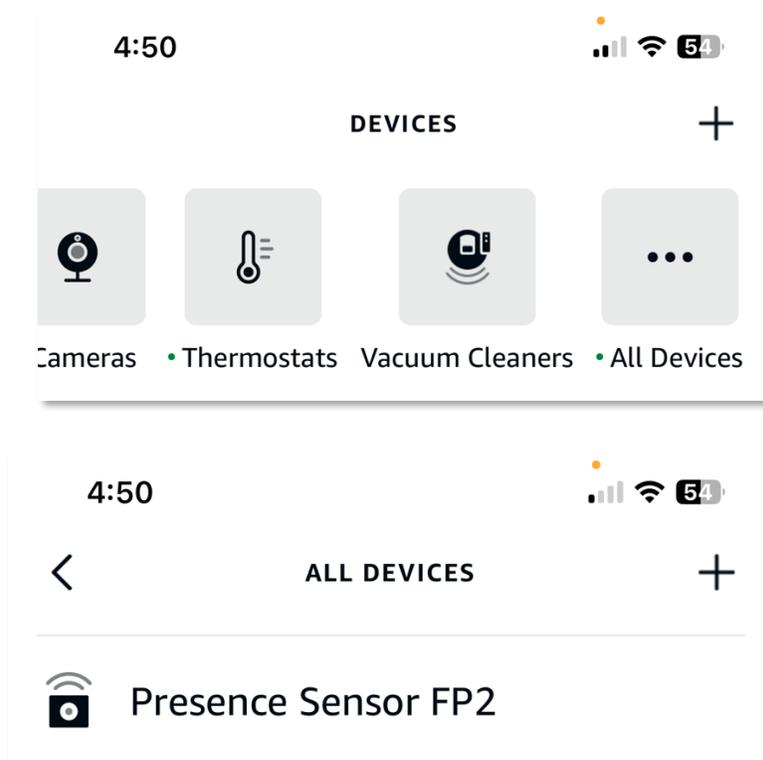
You also need to add the device/friendly name to the Amazon Echo Skill app in Hubitat by checking the box next to the device name “Presence Sensor”.





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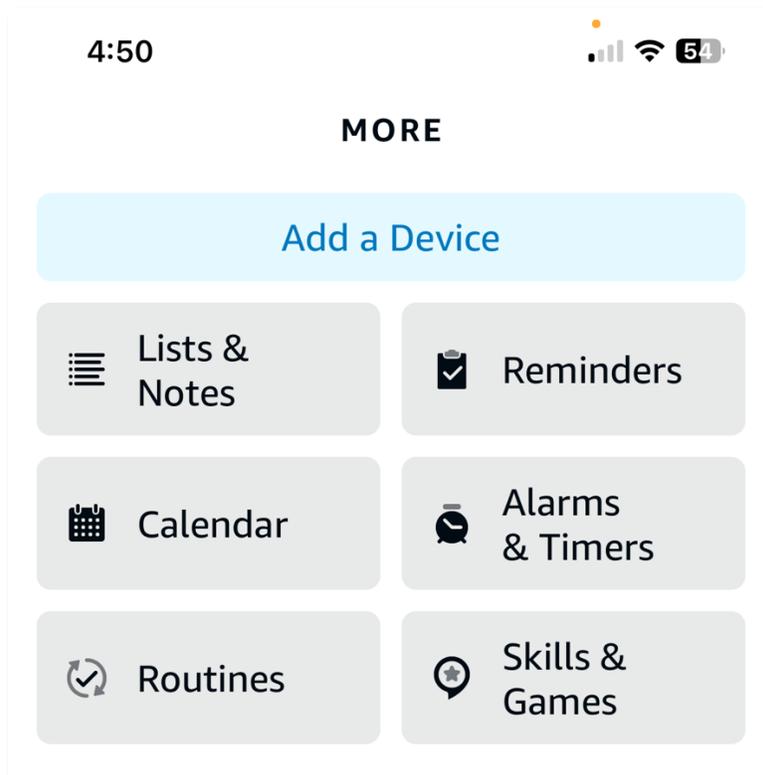
Next, in the Alexa phone app, if you select “All Devices”, you should see the Aqara sensor.





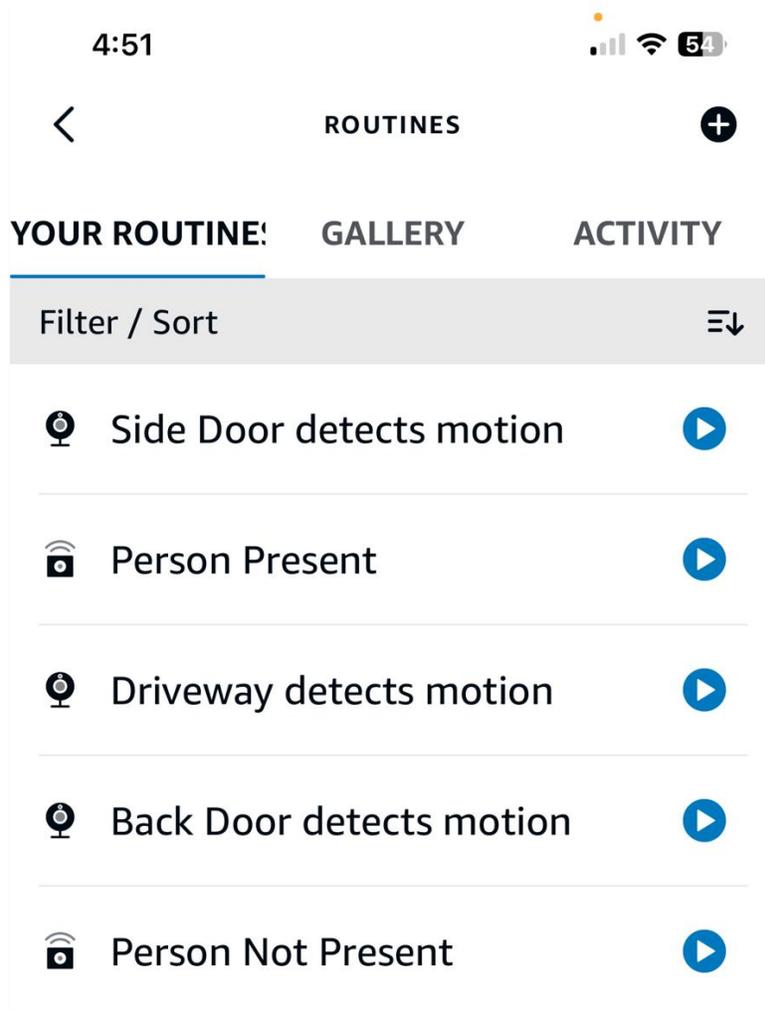
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Then, select “Routines” in the Alexa app and set the On and Off actions for the sensor to trigger your HCA program by creating two routines, “Person Present” and “Person Not Present”, and setting the appropriate values for them as shown:





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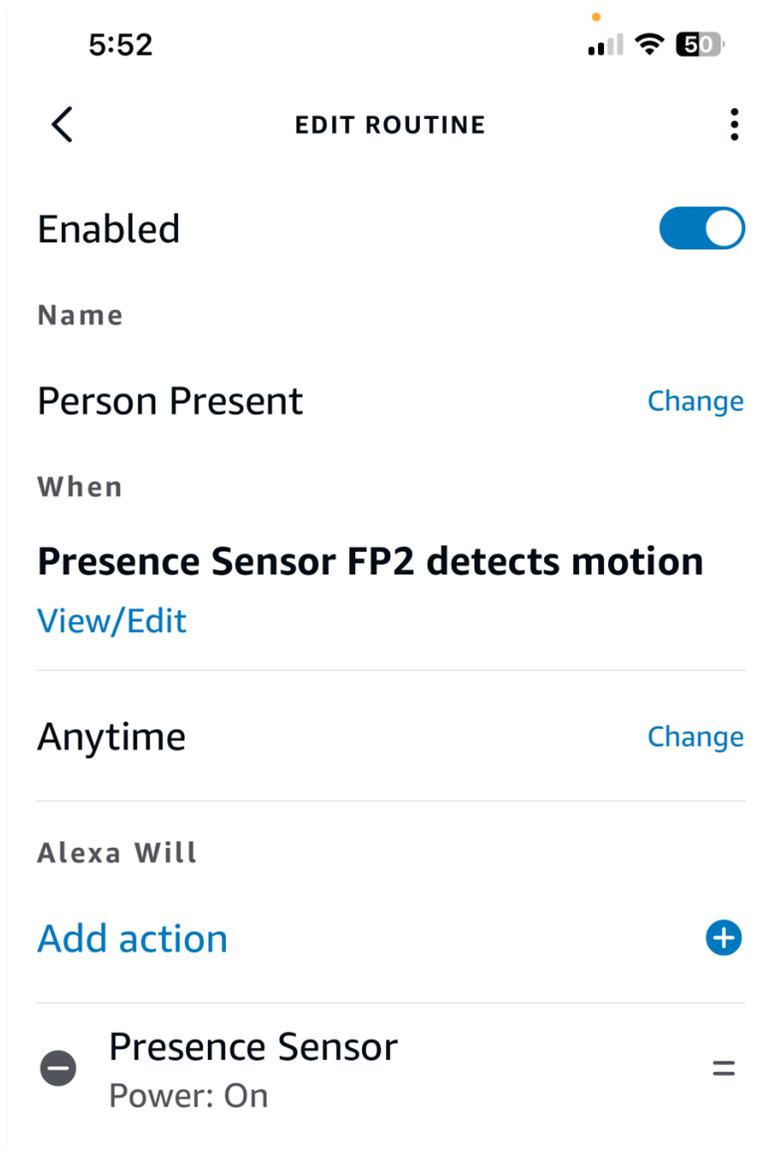


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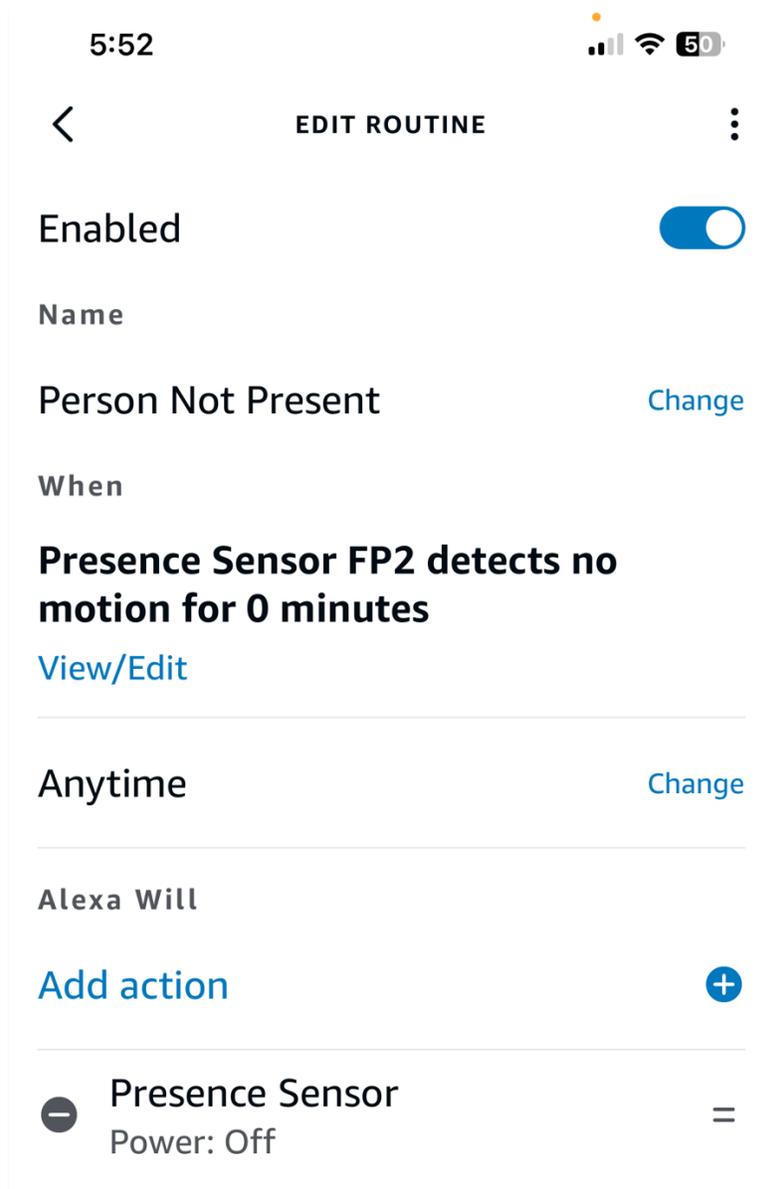


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After doing this, you can test everything by moving in front of the presence sensor. This should cause the HCA program to start with an “ON” trigger. Moving out of the sensor’s field of view should start the program with an “OFF” trigger.

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The method described in this tech note can be generalized to trigger a program in HCA when a device known to Alexa has an event, such as a camera detecting motion, as long as the HCA program-as-device has a friendly name that is checked in the Hubitat Alexa app, so that Alexa is aware of it.

It is also possible for HCA to control Alexa devices, such as arming and disarming cameras known to Alexa. An example of this is described in HCA Tech Note 709.

##end##