



HCA Tech Note 705

SwitchBot Integration with HCA using Hubitat (updated 16-July-23)



There are some things that just aren't easy to automate, such as devices with mechanical switches, momentary or otherwise. Such devices include fans, coffeemakers, etc. There is however, a device designed to make it possible to control many of these devices: the SwitchBot

<https://us.switch-bot.com/products/switchbot-bot>

This is a remotely-controllable mechanical switch actuator.

While this device is easy to install and control from their app on a phone via Bluetooth, it would be great if it could be integrated with HCA so that HCA features, such as scheduling, could be used.

Fortunately, a driver has been written to control the SwitchBot via Hubitat and the SwitchBot cloud service. To utilize the SwitchBot cloud service, a SwitchBot Hub Mini is required:

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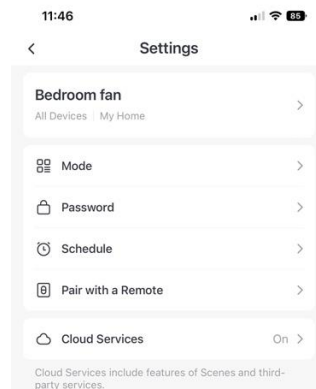
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<https://us.switch-bot.com/pages/switchbot-hub-mini>

This hub connects to the home network via 2.4Ghz WiFi and acts as an IP-to-Bluetooth bridge.

The first thing to do is to install the SwitchBot on the device to be controlled and get it working via Bluetooth using the SwitchBot app. (Should you need to reset the SwitchBot so you can re-pair it for any reason, remove the battery, hold the reset button down, then re-insert the battery and release the reset button. The LED inside the unit should momentarily light up and then go out and the app should shortly show that it has found a device for pairing.)

The next step is to install the SwitchBot Hub Mini, create a free account on the SwitchBot service, and try to control the SwitchBot using an IP connection via the SwitchBot app. In the SwitchBot settings in the SwitchBot app, "Cloud Services" must be set to "On" for the SwitchBot device:



Note that whenever the SwitchBot Hub Mini is powered up, it seems to take a minute or two before it fully connects to their cloud service and control starts working. This can lead you to think that it has stopped working if, for example, you power it down to move it.

Once this is all working, the next step is to install the Hubitat driver. The driver along with a README file can be found here:

<https://github.com/toffehoff/hubitat/tree/main/Drivers/api-bot>

The driver can be installed using copy-and-paste, just as the HCA Hubitat drivers are. Configuring the installed driver also requires getting an Open Token and Device ID from SwitchBot and instructions for doing this can be found at the above link. The DeviceID is the Bluetooth address and this may also be found in the SwitchBot app under the device "Settings-Device Info". You also need to create a Hubitat virtual switch device for the

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SwitchBot using the "+ Add Device" under Hubitat devices. Once you have created the virtual switch and installed the SwitchBot driver, change the driver to the SwitchBot driver and update the device. To change the driver type, open the drop-down "Type*" in the device settings and select "SwitchBot Bot-API". Note that the driver list is not in alphabetical order and the correct driver appears at the bottom of the list under "User" drivers (next to the HCA drivers). You will then see places to set the three parameters (OpenToken, DeviceID and Device mode). You can leave the "Device mode of the bot *" set to "Press" if what you need is the bot just making a momentary push of a switch. (HCA will control it via "On" and "Off" commands with this setting.) After making this change, be sure to "Save Device".

The screenshot shows the Hubitat device settings interface. The top section is titled "Preferences" and contains three input fields: "Your SwitchBot Open Token *" with the value "fcf54ab3062c9d8e7f92eaf9de1ff414b9fb76e441e077", "Device ID of the bot *" with the value "DD640D6DCE37", and "Device mode of the bot *" with a dropdown menu set to "Press". Below these is a toggle for "Enable debug logging" which is currently off, and a "Save Preferences" button. The bottom section is titled "Device Information" and contains several fields: "Device Name *" with the value "Bedroom Fan", "Device Network Id *" with the value "9f49862d-2a79-420f-b0f9-ac659b2c9c41", "Type *" with a dropdown menu set to "SwitchBot Bot - API", "Room" with a dropdown menu set to "No room assigned", "Device Label" (empty), and "Zigbee Id" (empty).

The next step is to add the device in the Hubitat MakerAPI. After checking the device, be sure to hit "Update".

Once this is done, you should go into HCA and run the program "#1 Do Discover" in the Hubitat Elevation software package you can download from the HCA website. Your SwitchBot should show up in the Hubitat Devices folder. You can drag-and-drop the device to whatever folder you would like it in.

If you want to control your SwitchBot using Alexa, you can set a friendly name for it in HCA, and then go into the Amazon Echo Skill app in Hubitat and check off the SwitchBot's name. Be sure to click "Update" after doing this.

##end##