

# Vance S. Project#2 – Detailed view (v1)

By Bill Weis

## Vance S. – Quadriplegic

Requirements:

1. We wanted to move from a Limited Mobility Solutions voice controlled door opener to a commercially available solution

Solution – High Level:

1. We adapted a commercially available garage door opener device to replace the current controller.

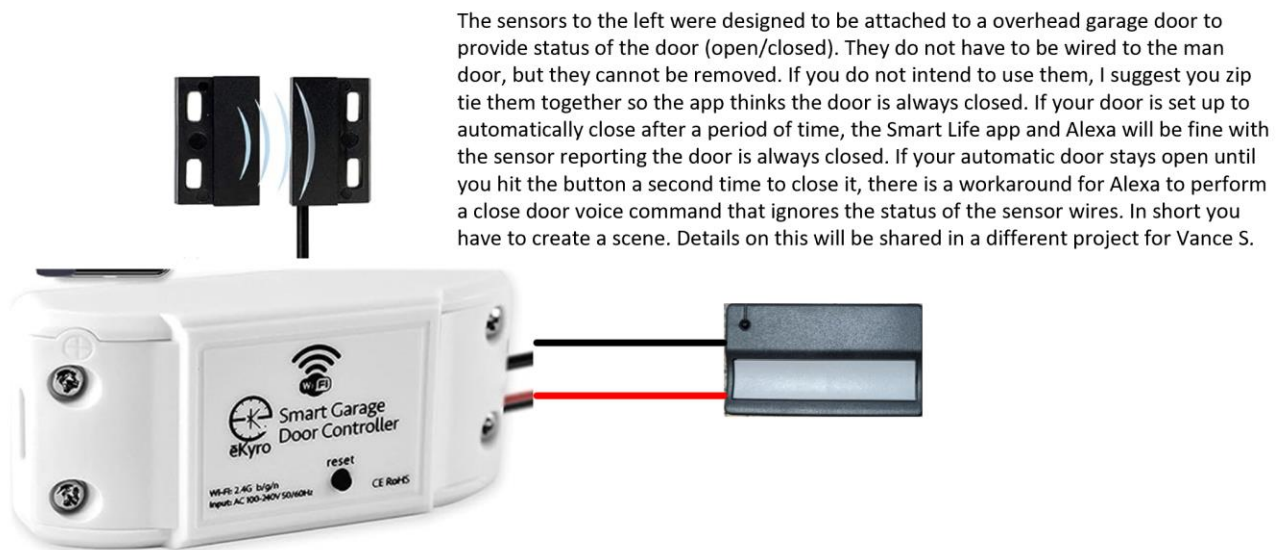
## Details of the Solution

**1 – Replace Current Voice Controlled Door Openers with Commercially Available Devices** – Vance has door opener systems from multiple manufacturers and a few years ago Limited Mobility Solutions provide a way for him to open those doors using voice commands. As soon as we learned of a commercially available device to replace our design, we began to investigate and test whether this could be a suitable replacement. In fact, it is working well and offers a security feature that we did not provide which is a security code that he must provide when opening the door through Alexa. Here are some details on the device which can be ordered from Amazon.

[eKyro Smart Garage Door Opener - Universal WiFi Remote Controller Compatible with Alexa, Google Home, iPhone, Siri, Android, 1 2 or 3 Door Security Systems, Updated Model](#)

Here is some additional information – This device uses the Smart Life app and there is an Amazon skill that enables voice commands. You will have to solder two wires to the hand remote contacts that currently operates the door and you will connect those wires to the black and red wires that come out of the eKyro device. It does not matter how you connect those wires from the hand remote to the red and black wires as all you are doing is completing a circuit. The relay in the eKyro device when energized will simulate a button push on the hand remote and open or close the door. The following diagram discusses the sensor wires which you cannot remove from the eKyro device, but you can tape or zip tie them together if you do not want to use them. It is important to note however that

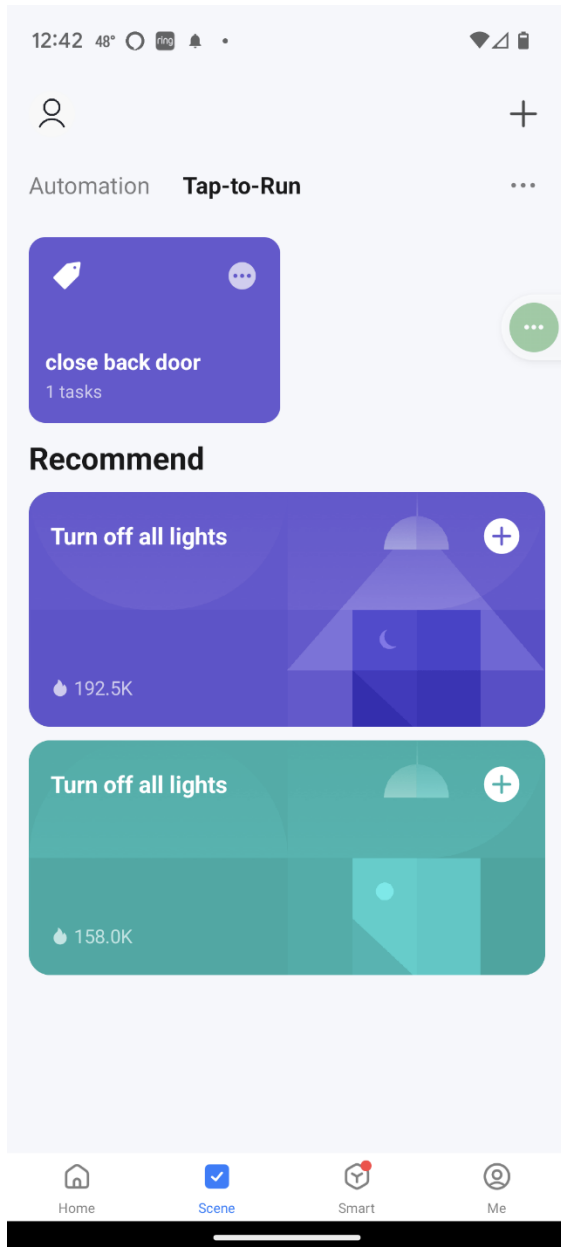
permanently connecting the sensors together may require additional software config work. Alexa will think the door is always closed and will not do anything if a close door command is issued. This is not a problem if the door opener system is set to automatically close the door after it has been opened. For those door opener systems that leave the door open, you can issue another "Alexa Open Door" command to close the door, or you can create a scene in the Smart Life app to fool Alexa, then use that scene in an Amazon Routine. The details on how to do this are shown below the picture of the Smart Garage Door Controller.



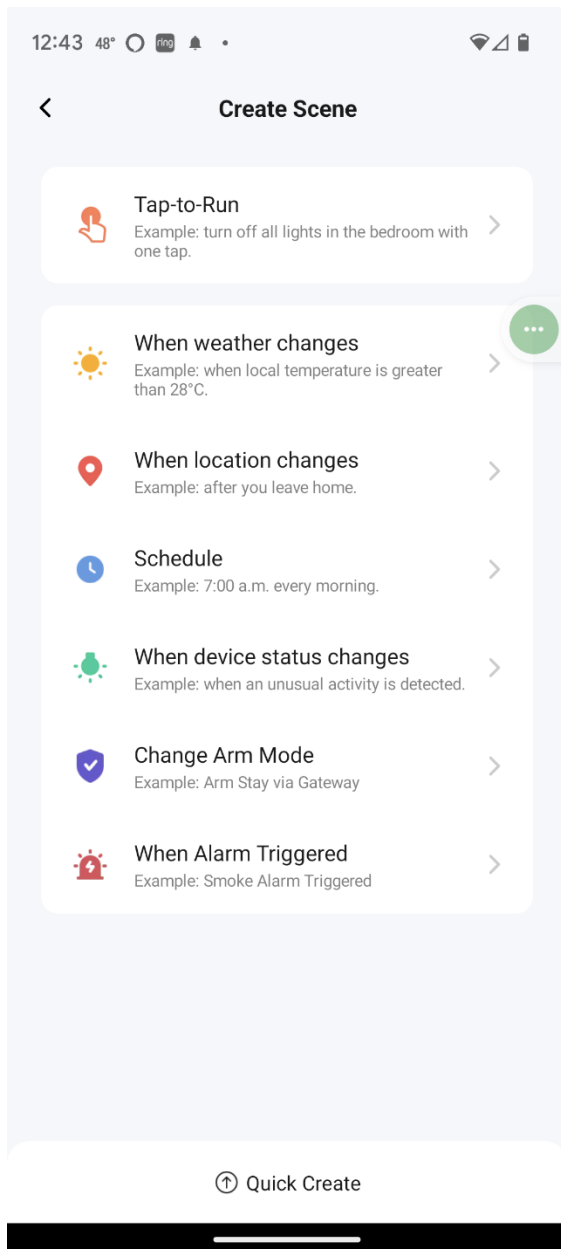
Big Picture - Create a Scene in the Smart Life app and then create an Alexa Routine to use that Scene. We need to fool Alexa into triggering the relay to close the door when the sensor is telling Alexa the door is already closed. In our Scene, we need to have a "Back Door Open" function.

Here are the detailed steps:

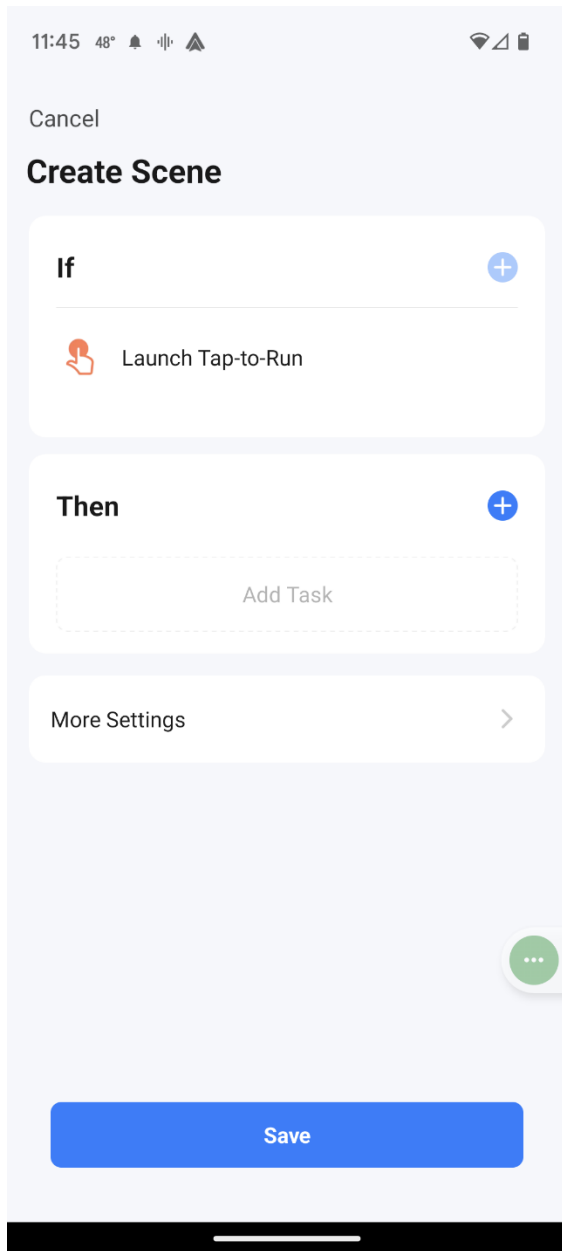
1. **Open the Smart Life app and click on Scene at the bottom of the Screen, then click the "+" in upper right**



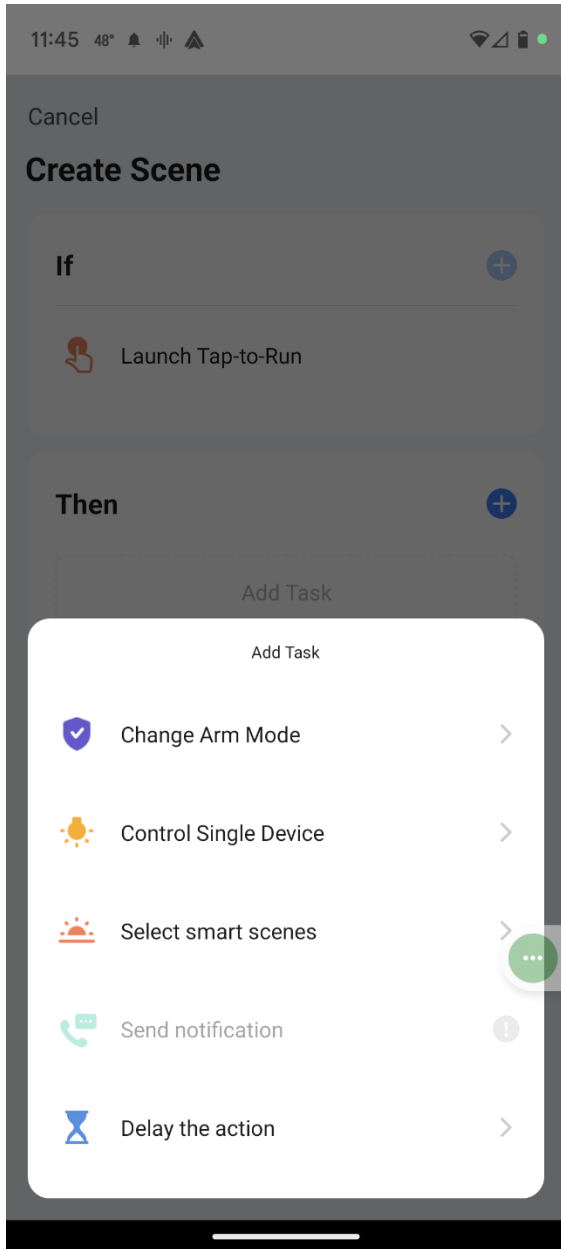
## 2. Click Tap-To-Run



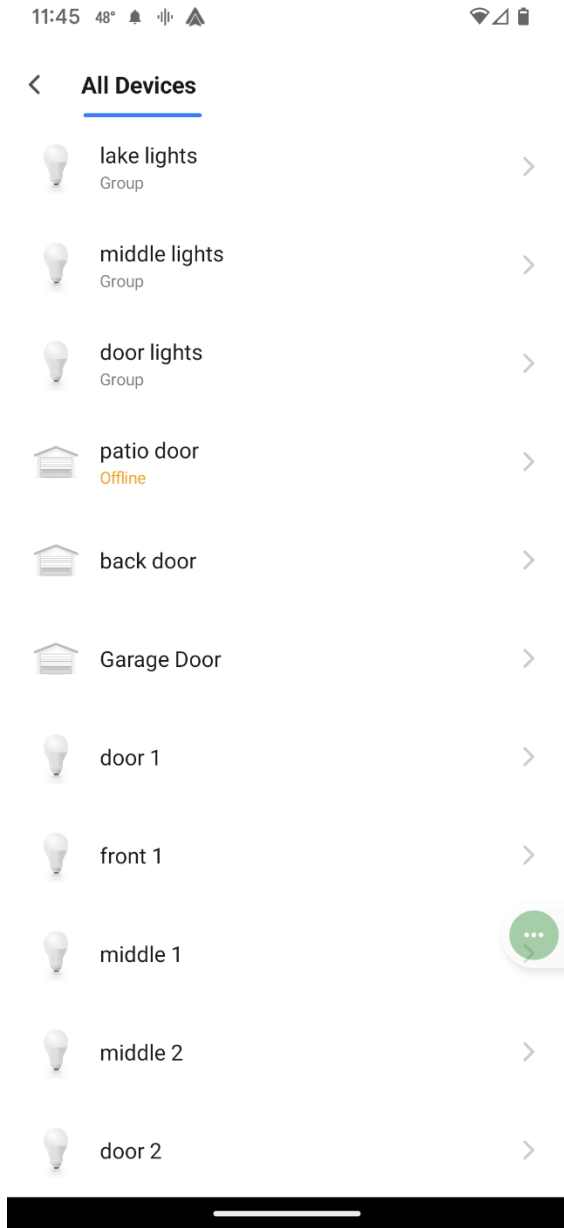
3. In the Create Scene page, click "+" next to Then



#### 4. Select Control Single Device



## 5. Select the appropriate garage door device (ie: Back door)



6. Select Function screen click ">" next to Action and go to Step 7

12:46 48°   



Select Function

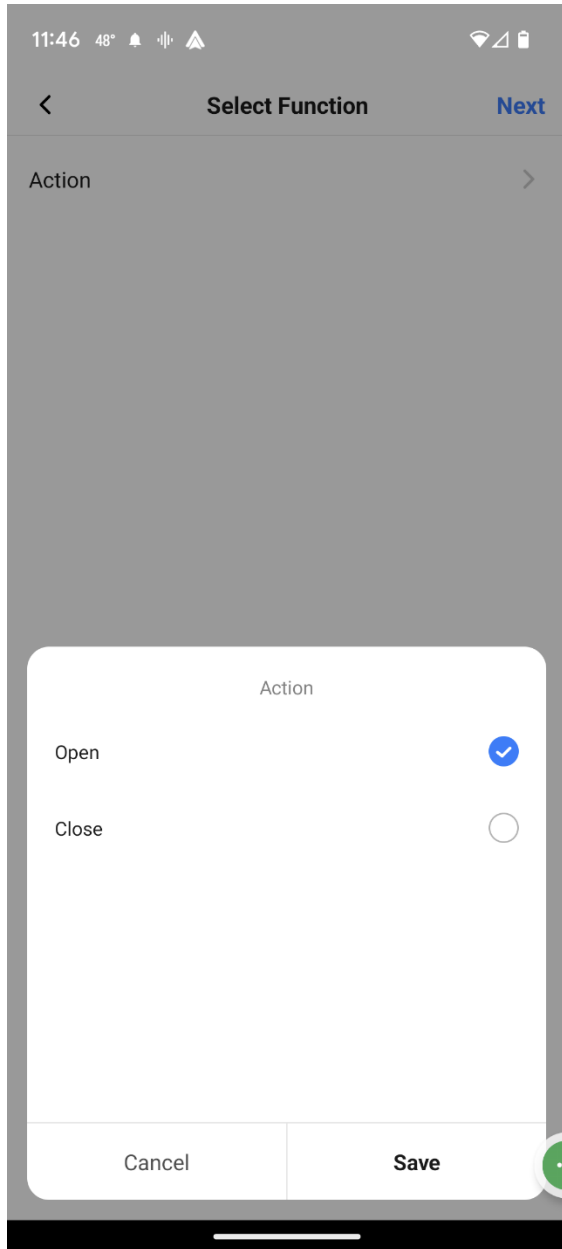
Next

Action

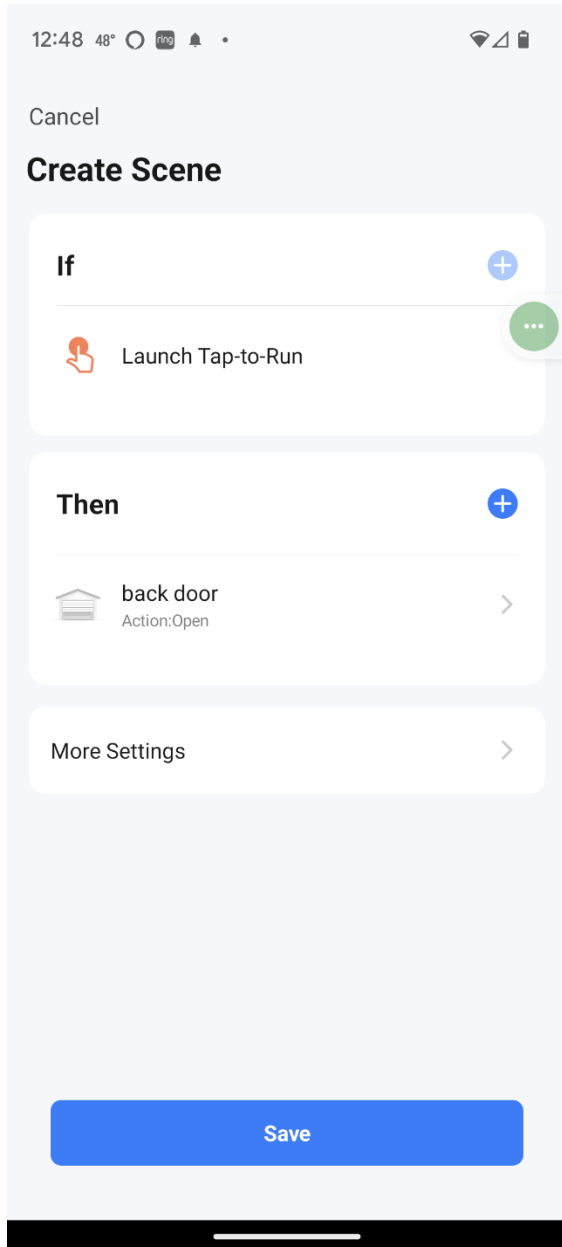




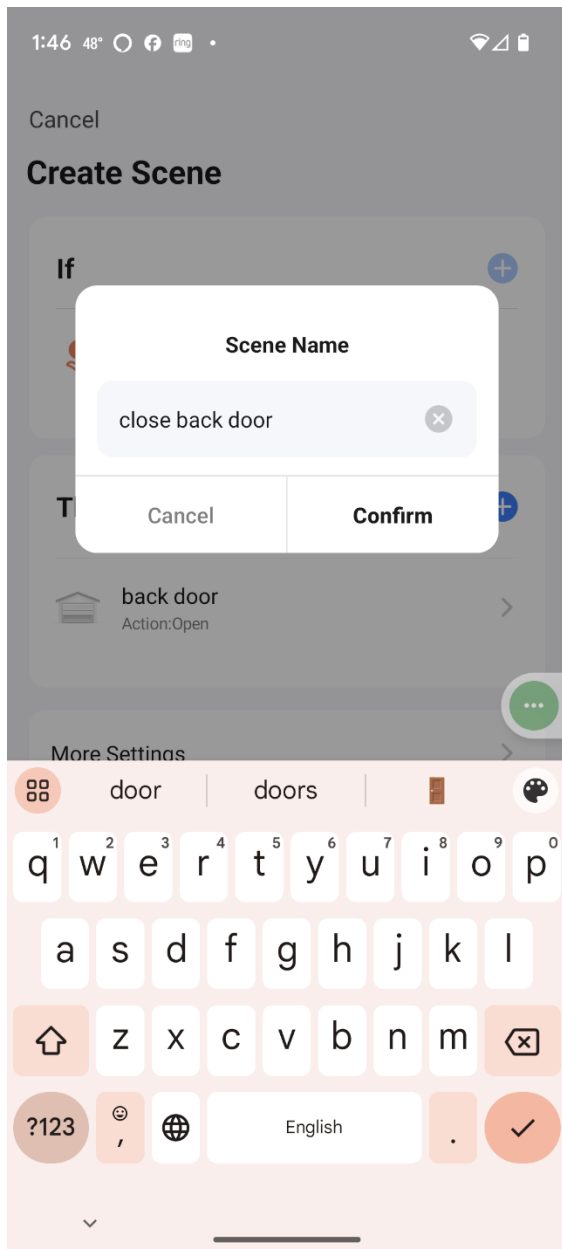
7. Select the Open Function (When we give the close door command, we need to trick Alexa since Alexa knows the sensors are connected in a permanent closed position, so we want Alexa to think it is opening the door when we say Close door). Click Save, then click Next in upper Right



8. Back to Create Scene page, hit Save



9. After clicking save you will give the Scene a name that will be used in the Alexa Routine, click **Confirm** and that will bring you back to the main Scene page and you will see a popup that **New Scene Added**.





Automation **Tap-to-Run**



**close back door**  
1 tasks



### Recommend

**Turn off all lights**

192.5K

**Turn off all lights**

158.0K



Home



Scene

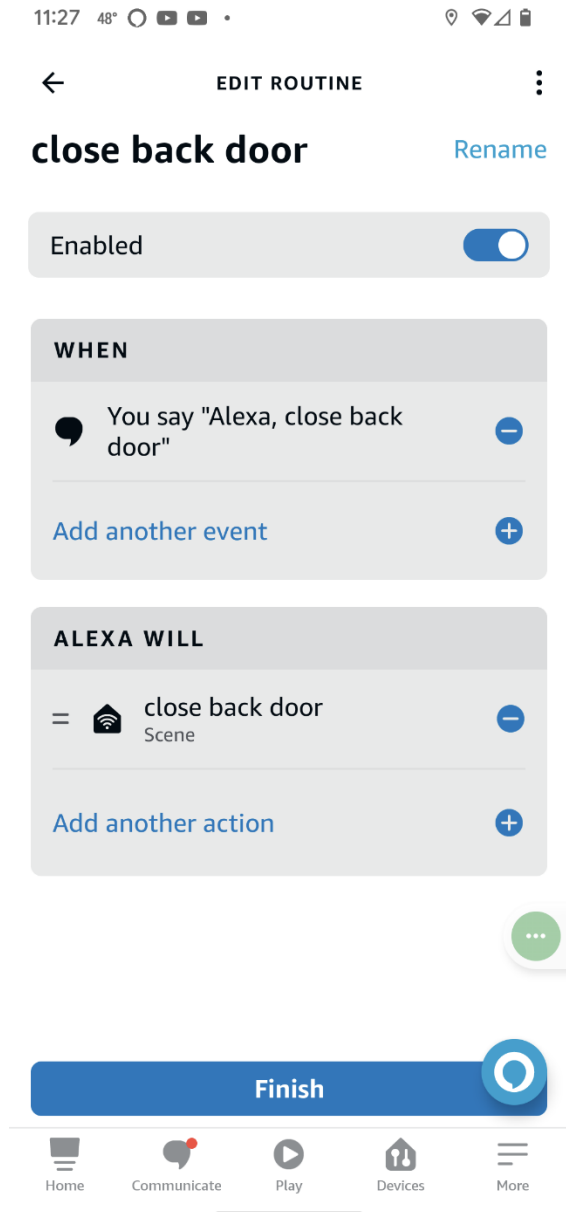


Smart

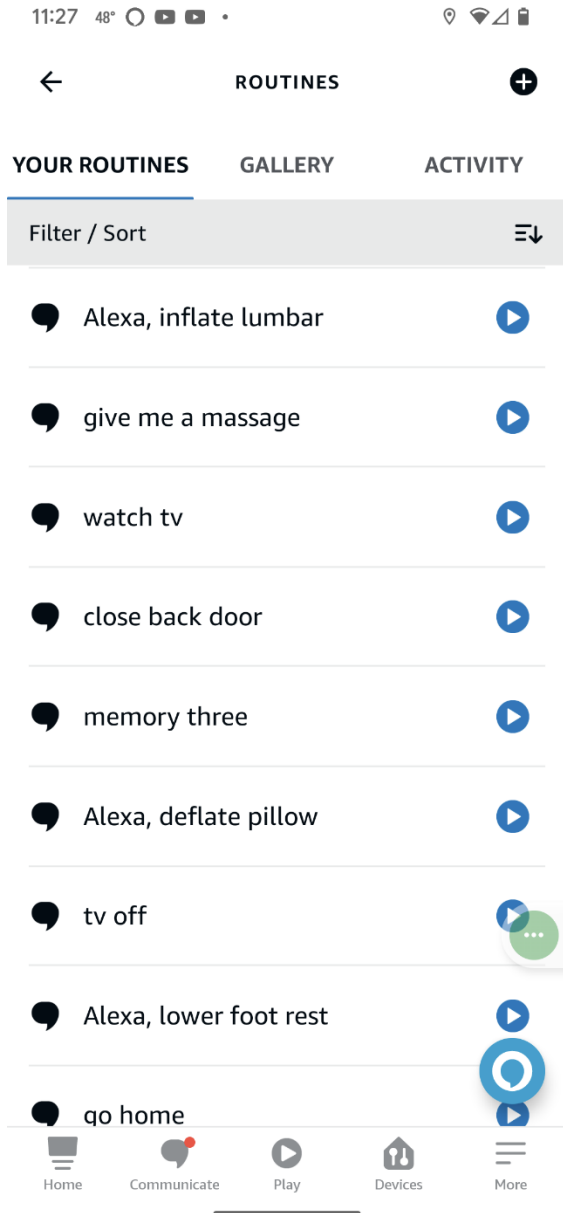


Me

1. The Scene is now created and the rest of the steps will be in the Alexa app. On the Alexa app home screen, go to More in the lower right, then select Routines.
2. Select "Your Routines" and click the "+" symbol to create a routine
  - a. When - Add and Event by hitting "+". Select Voice and type the desired command (ie: Close back door), then hit next in upper right.
  - b. Alexa Will - Add an action by hitting the "+" symbol. Select Smart Home, then Scenes, then the "Close Back Door" scene and click Add, then Save.

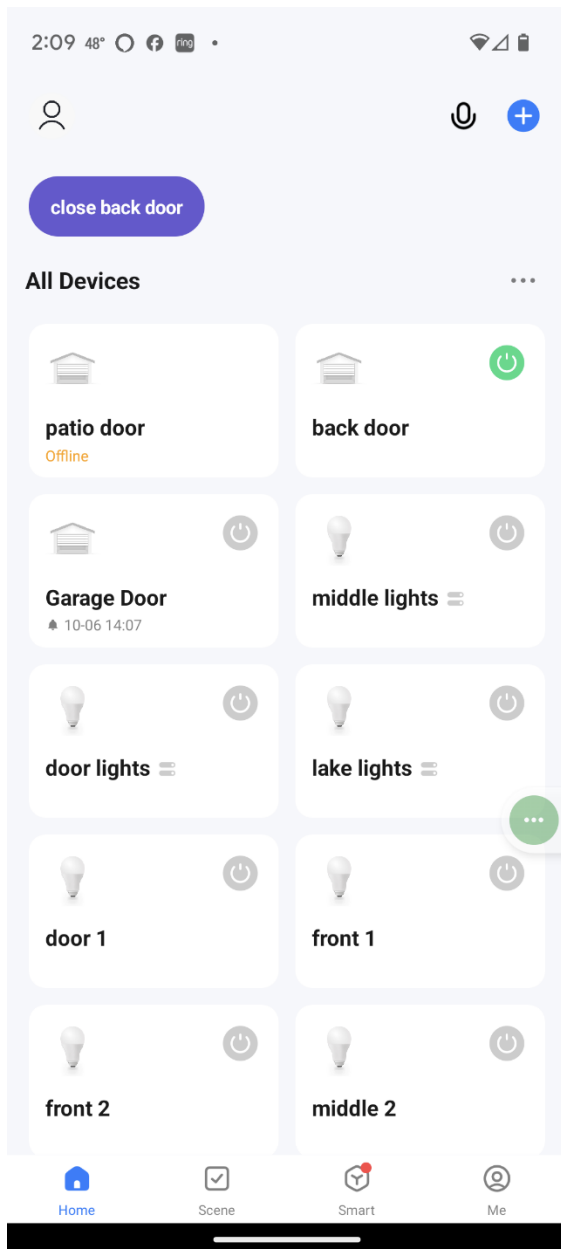


3. Click Save if creating a new routing or Finish if editing an existing routine. You will see a banner that it may take up to a minute for the routine to be active. Actually it take several minutes for the voice command of the routine to work. You can always hit the play button to the right of the routine.

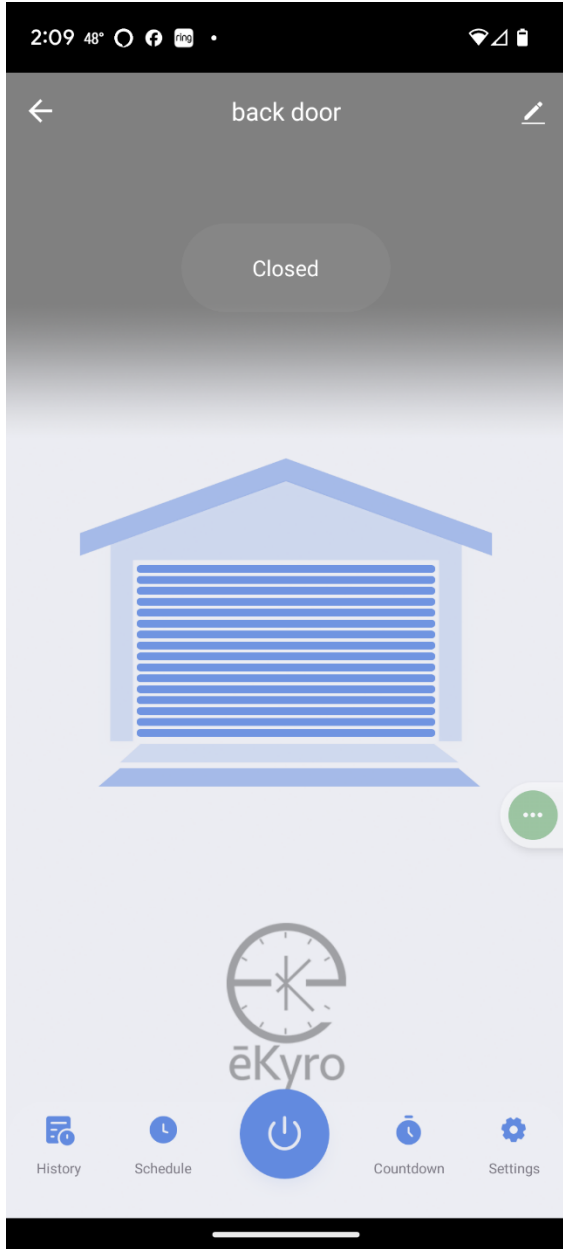


## Final Steps - Enable the device to be controlled by Alexa or Google

1. Go to the Smart Life main screen and select the door opener device



2. Within the Garage door device page, select Settings in the Lower Right





**3. In Settings, enable voice control and if appropriate turn off notifications**

