

# Smart Home Simulator – User Guide

## Booth Setup, Demo Operation, Shutdown, and Troubleshooting

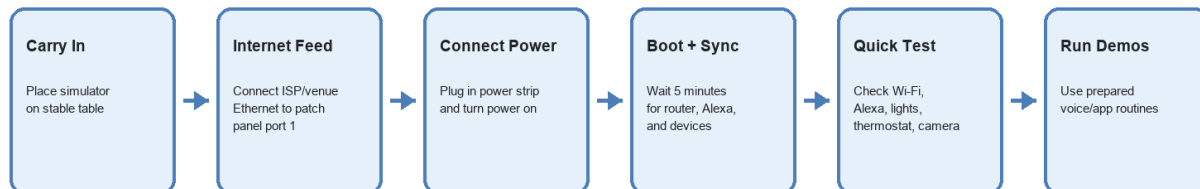
Audience	Use Case	Estimated Setup	Power
Instructor / demo sales rep	Travel booth demo	10-15 minutes	One grounded outlet

<b>Purpose</b>	This guide is for the person carrying the Smart Home Simulator to a classroom, recruiting event, trade booth, or sales demo. It explains how to set the simulator up, power it on, let devices boot and sync, run short demos, shut down, and handle common problems.
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### CARRY-IN AND BOOTH SETUP

Set the simulator on a stable table where visitors can see the front of the board and the instructor or rep can reach the power strip, router, Echo Show, thermostat, and demo devices. Before powering on the smart-home demos, connect the booth internet feed to the simulator so the router can reach the internet.

#### Booth setup and demo start flow



**Do not start the demo immediately after plugging in. Give the simulator a full 5-minute boot and sync window.**

Before powering on, confirm that loose cables are tucked behind the frame and that the simulator is not leaning, pinching cords, or blocking airflow around the router.

Done	Item	Notes
[ ]	Table is stable and simulator is secure	Use a table wide enough for the frame and any demo handouts.
[ ]	ISP/venue Ethernet cable is connected to patch panel port 1	This is the internet feed for the router WAN/IN connection.
[ ]	Power strip is attached to the frame	Confirm Velcro is holding and switch is reachable.

[ ]	Router antennas are upright	Avoid placing signs, metal objects, or bags against the router.
[ ]	Echo Show is visible	Angle the screen toward the demo area.
[ ]	Thermostat and HVAC simulator are visible	Students should be able to see LED changes during HVAC demos.
[ ]	Doorbell/camera and lights are mounted or staged	Mount brackets and stands should be tight before visitor traffic starts.

## POWER-ON AND FIVE-MINUTE BOOT WINDOW

<b>Timing</b>	After plugging in and turning on the power strip, wait a full 5 minutes before judging whether the demo is working. The router, Echo Show, smart plugs, lights, thermostat, and third-party apps may reconnect at different speeds.
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**1** **Connect the internet feed**  
 Plug the ISP/venue Ethernet cable into patch panel port 1. This feeds the router WAN/IN path so cloud-connected devices can reach the internet.

**2** **Plug into booth power**  
 Use one grounded outlet. Avoid sharing the same outlet with high-draw booth equipment when possible.

**3** **Turn on the simulator power strip**  
 Confirm the power strip indicator is on and all attached adapters are seated.

**4** **Let the router and devices boot**  
 Do not start routines yet. Give the simulator 5 minutes to connect and sync.

**5** **Confirm Wi-Fi and internet are available**  
 Look for the Smart Home Admin SSID and IoT Devices SSID. From an admin phone/laptop, confirm a basic web page loads.

**6** **Open Alexa or device apps if needed**  
 Confirm the Echo Show, lights, thermostat, and camera show online before the first live demo.

## PRE-DEMO TEST CHECKLIST

Done	Item	Notes
[ ]	Echo Show responds to wake word	Try a simple command such as asking for the time.
[ ]	Router has internet access	Confirm the ISP/venue Ethernet cable is in patch panel port 1 and a connected phone/laptop can load a web page.
[ ]	Smart light responds from app or voice	Turn one light on and off.
[ ]	Thermostat app opens and shows current status	Confirm the thermostat is online before running HVAC calls.
[ ]	HVAC simulator LEDs respond	Test fan, cool, heat, and stage 2 if configured.
[ ]	Doorbell/camera app opens	Confirm live view or status page loads.
[ ]	Prepared Alexa routines are visible	Run one routine from the Alexa app before presenting.
[ ]	Reset state is ready	Lights, thermostat mode, and camera screen should be in the starting condition.

## DEMO SCENARIOS

Keep booth demos short and repeatable. Each demo should have one clear trigger, one clear physical response, and a reset step.

### Demo menu for booth presentations

<p><b>Good Morning</b> Turn on smart lights, show Alexa response, set thermostat comfort mode.</p>	<p><b>Away Mode</b> Turn lights off, adjust thermostat, show system entering low-activity mode.</p>
<p><b>Doorbell Event</b> Show doorbell/camera app or Alexa display response and visitor announcement.</p>	<p><b>HVAC Call</b> Use thermostat to call Heat, Cool, Fan, or Stage 2 and show LED response.</p>
<p><b>Voice Control</b> Use Echo Show voice commands to control one light or group of lights.</p>	<p><b>Recovery Demo</b> Show how to reset a device/routine after a failed or delayed response.</p>

Keep each booth demo short: explain the goal, run the action, point to the physical response, then reset.

Demo	What to Say	Action	Expected Result	Reset
Good Morning	This routine brings the smart home into a ready state.	Say the routine phrase or run from Alexa app.	Lights turn on and thermostat moves to comfort setting.	Turn lights off or run booth reset routine.
Away Mode	This shows how automation can reduce activity when nobody is home.	Run Away Mode routine.	Lights turn off and thermostat adjusts.	Return thermostat and lights to demo-ready state.
Doorbell Event	This shows a visitor alert workflow.	Press doorbell or open camera event demo.	Echo Show/app displays or announces doorbell status.	Close camera view and return screen to home.
HVAC Call	This shows thermostat control without a full HVAC unit.	Set thermostat to heat, cool, fan, or stage 2.	Matching LED lights on HVAC simulator.	Return thermostat to off/idle.
Voice Control	This shows direct hands-free control.	Ask Alexa to turn a light on or off.	Selected light changes state.	Return light to starting state.

## BOOTH SCRIPT

1

### Introduce the simulator

This board represents a small smart home network with Wi-Fi, smart voice control, lighting, camera/doorbell, and a simulated HVAC system.

2

### Point out the network side

Show the router, patch panel, and the idea that smart devices need reliable network connectivity before automation works.

3

### Run one short routine

Use Good Morning or Away Mode first because these are easy to understand and reset.

4

### Show the HVAC simulator

Explain that the thermostat sends low-voltage calls and the LED module shows what the HVAC equipment would receive.

5

### Close with troubleshooting value

Mention that later labs can cover device setup, router hardening, ACLs, and troubleshooting when devices do not respond.

## SHUTDOWN AND TURN-OFF

### Important

Shutdown is part of the demo. Return the simulator to a known safe state before unplugging it, especially if the next person will set it up without rebuilding the routines.

1

#### Stop active demos

Turn off active lights, stop camera live view, and return thermostat to off/idle or the chosen travel state.

2

#### Confirm no HVAC LEDs are active

The HVAC simulator should not be calling heat, cool, fan, or stage 2 before pack-up.

3

#### Close apps

Close Alexa and third-party apps on any phone/tablet used for the demo.

4

#### Turn off the power strip

Use the power strip switch, then unplug from booth power.

5

#### Coil and secure cords

Keep cords with the simulator. Do not leave adapters or short patch cables loose on the booth table.

6

#### Pack mounted devices carefully

Protect the Echo Show, camera/doorbell, thermostat face, router antennas, and any loose brackets.

## TROUBLESHOOTING

Problem	Likely Cause	What to Try
Nothing powers on	Power strip off, outlet dead, plug loose	Check outlet, power strip switch, main plug, and wall adapter seating.
Wi-Fi works but cloud devices are offline	ISP/venue Ethernet not connected or wrong patch panel port	Connect the internet feed to patch panel port 1, wait 5 minutes, then retest apps.
Router Wi-Fi missing	Router still booting or power lost	Wait 5 minutes, check router lights, then power-cycle only if needed.
Echo Show not responding	Still connecting, muted mic, wrong Wi-Fi	Check mic mute, wait, then open Alexa app to confirm online status.
Light will not turn on	Device offline, app sync delay, routine mismatch	Try device app first, then Alexa app, then power-cycle that device.
Thermostat does not trigger LEDs	Thermostat offline, wrong mode, loose low-voltage wire	Confirm thermostat app status, selected mode, and R/C/W/Y/G/B wiring at the simulator.
Doorbell/camera feed will not load	Weak Wi-Fi, app login expired, device not online	Move phone closer, open vendor app, sign in if needed, and confirm device online.
Routine runs only part of the demo	One device is offline or routine action changed	Run each device manually, then review the Alexa routine action list.
Demo is slow	Booth Wi-Fi noise or device cloud delay	Explain cloud/device delay to visitors, wait, then rerun the reset routine before trying again.

## END-OF-EVENT PACK-UP CHECKLIST

Done	Item	Notes
<input type="checkbox"/>	Power strip off and unplugged	Confirm indicator light is off.
<input type="checkbox"/>	Router, Echo Show, thermostat, camera, and lights are secure	No hanging devices or loose brackets.
<input type="checkbox"/>	ISP/venue Ethernet cable removed from patch panel port 1	Do not leave the booth internet cable attached during pack-up.
<input type="checkbox"/>	Patch cables and adapters are packed	Keep short patch cables with the simulator kit.
<input type="checkbox"/>	Account sheet and passwords are stored securely	Do not leave account information on the booth table.
<input type="checkbox"/>	Simulator frame is ready for transport	Check for loose screws, loose Velcro, or exposed cable strain.

## QUICK ACCOUNT AND DEMO NOTES

Item	Value / Location	Notes
Smart Home Admin SSID		
IoT Devices SSID		
ISP/venue Ethernet feed	Patch panel port 1	Connect before powering on demos.
Alexa account		
Thermostat app/account		
Lights app/account		
Doorbell/camera app/account		
Primary demo routine names		

**Prepared by Sonny Bever**

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For classroom, booth, and smart-home simulator training use.