

Smart Home Simulator — Build Guide 09

Build Routines and Demo Scenarios

TYPE	PHASE	CONTROL	USE
Tabletop Simulator Panel	Routines + Demo Scenarios	Alexa App / Echo Show 5	IoT / Smart Home Training

BEFORE: Complete Guide 08 first. The thermostat, lights, doorbell camera, Alexa app, and Echo Show 5 should already be linked, named, grouped, and tested before building routines.

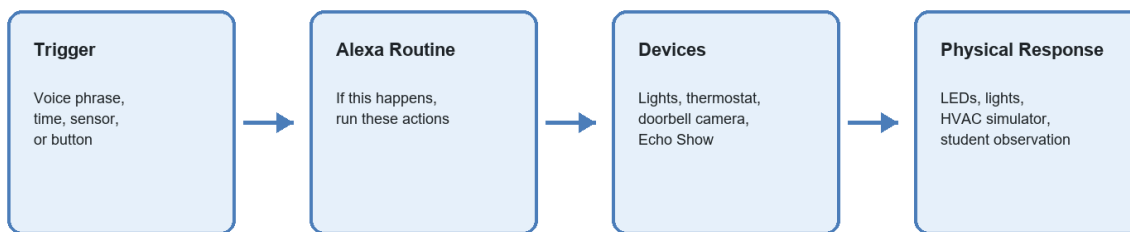
GOAL OF THIS PHASE

Create simple Alexa routines and demo scenarios that students can trigger, observe, test, and reset. Keep routines predictable so the simulator can be used repeatedly in class.

- Each demo routine needs a clear trigger, device actions, expected physical response, and reset step.
- Use clear voice phrases that match the scenario, such as Alexa, start good morning demo.
- Avoid complex security or access-control logic in this phase; focus on observable smart-home behavior.
- Document every routine so another instructor can rebuild or troubleshoot it.

ROUTINE DESIGN FLOW

Build routines and demo scenarios



Recommended first demo routines

Good morning demo

Turn lights on, set thermostat, show camera.

Away mode demo

Turn lights off, lower HVAC, show doorbell status

Doorbell event demo

Show camera feed and announce visitor.

Routines should be simple, repeatable, and easy for students to reset between demonstrations.

Fig 1 — A good demo routine has a trigger, actions, visible device response, and reset plan.

BUILD THE FIRST ROUTINE

1 **Open Alexa app routines**
Open the Alexa app using the simulator account. Go to More > Routines or the current Routines menu.

2 **Create routine name**
Use a clear name such as Demo 01 - Good Morning. Avoid vague names like Test 1.

3 **Choose trigger**
Select voice trigger, schedule, smart device trigger, or button trigger. Voice is easiest for the first classroom demo.

4 **Add actions**
Add device actions for lights, thermostat mode/temperature, Echo Show announcement, or camera display if supported.

5 **Save and test**
Run the routine from the Alexa app first, then test by voice on the Echo Show 5.

6 **Create reset routine**
Build a matching reset routine that returns lights, thermostat, and camera display to the start state.

RECOMMENDED DEMO SCENARIOS

SCENARIO	TRIGGER	ACTIONS	RESET
Good Morning	Alexa, start good morning demo	Turn on selected lights; set thermostat to comfort setpoint; announce demo start.	Turn lights off or neutral; return thermostat to default.
Away Mode	Alexa, start away mode demo	Turn off lights; set thermostat to away setpoint; announce away mode.	Return lights and thermostat to normal demo state.
Doorbell Event	Alexa, show doorbell demo	Show doorbell camera on Echo Show if supported; announce visitor.	Stop camera display; return Echo Show to home screen.
HVAC Heat Call	Alexa, start heat demo	Set thermostat to call heat; verify red Heat LED.	Return thermostat setpoint so heat call stops.
HVAC Cool Call	Alexa, start cool demo	Set thermostat to call cooling; verify blue Cool LED.	Return thermostat setpoint so cool call stops.

ROUTINE BUILD WORKSHEET

ROUTINE NAME	TRIGGER	DEVICES USED	EXPECTED RESPONSE	RESET ROUTINE

TEST CYCLE

Demo scenario test cycle

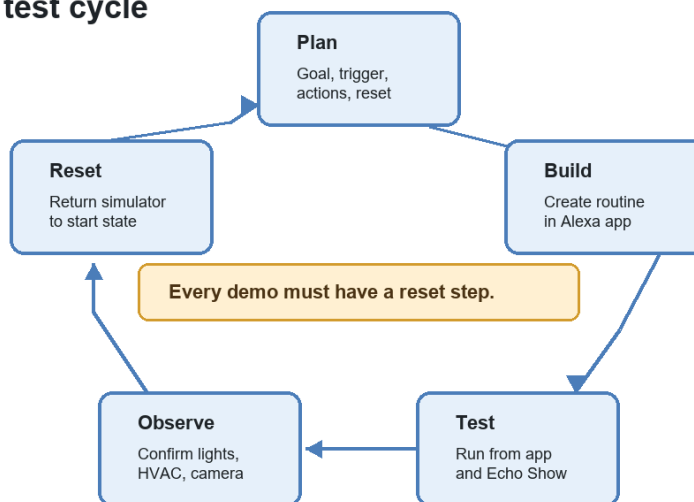


Fig 2 — Test every demo with the same cycle: plan, build, test, observe, reset.

STUDENT DEMO SCRIPT

1 Introduce the scenario
Explain what real smart-home behavior the routine is modeling.

2 Show the trigger
Have the student read or press the trigger. Keep phrasing visible on the worksheet or label.

3 Observe physical response
Students watch lights, HVAC LEDs, Echo Show, or doorbell camera response.

4**Ask what happened**

Have students identify which device/app/Alexa layer caused each response.

5**Run reset**

Return the simulator to its starting state before the next student or group.

FINAL ROUTINE CHECKLIST

CHECK	PASS CRITERIA	STATUS
Routine names	Names are clear and numbered for classroom use.	<input type="checkbox"/> Pass
Triggers	Triggers are easy to say or perform.	<input type="checkbox"/> Pass
Device actions	Lights, thermostat, doorbell, and Echo Show actions work as expected.	<input type="checkbox"/> Pass
Physical response	Students can observe a visible simulator response.	<input type="checkbox"/> Pass
Reset routine	Each demo has a reset or manual reset instruction.	<input type="checkbox"/> Pass
Worksheet complete	Triggers, actions, expected results, and reset steps are documented.	<input type="checkbox"/> Pass

NEXT PHASE — USER GUIDE AND STUDENT LABS

READY FOR USER GUIDE Student workflow Demo scripts Troubleshooting Reset procedure Instructor notes	DO NOT SKIP Routines tested Resets tested Expected responses documented Device names clean Worksheets complete
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Prepared by Sonny Bever

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IoT Smart Home Simulator — Build Guide 09: Routines and Demo Scenarios

