META-META Club

WORKBOOK · MODULE 2 OF 4

Interior configurator on Quest 3

XR for the Built Environment. XR spec module 1: a configurator a client can try in the headset.

Pro studios | 4 lessons | ~2.4 h | 4-question practice quiz | Notes pages

IN THIS MODULE

Interior configurator on Quest 3

XR spec module 1: a configurator a client can try in the headset.

#	LESSON	TYPE	TIME	DONE
2.1	The real brief	READ	20 min	☐
2.2	Build walkthrough	VIDEO	45 min	☐
2.3	The AI prompts used	READ	20 min	☐
2.4	Extension task	XR	60 min	☐

How to use this workbook

- Work through each lesson on metametaclub.com/learn, or listen to its narration, then use the page here to take notes.
- Tick the steps as you go, and write your answers under **Check yourself** before you look anything up.
- Do the practice quiz at the end, then mark it with the answer key on the last pages.
- Keep every **Ship it** piece. Together they become what you show.

Before you start

What do you already know about this, and what do you want to be able to make by the end?

LESSON 2.1 · READ · 20 MIN

The real brief

Read a typical brief for an interior configurator on Quest 3, and turn it into a clear definition of "done". The brief is anonymised: it reflects the kind of request studios receive, not a named client.

Key points

The brief

> A residential developer is selling apartments off-plan. Buyers struggle to picture finishes from swatches. The sales suite has two Quest 3 headsets. We want buyers to stand in a show apartment, switch between three finish packages (floor, kitchen fronts, worktop) and see the change instantly. Sessions should take five minutes. Staff, not buyers, will start the app.

Reading it like a builder

Pull out the facts:

- **Device:** Quest 3 (and 3S), standalone, in a sales suite.
- **Users:** buyers, many new to VR, guided by staff.
- **Core action:** switch finish packages, see the change at once.
- **Scope:** one apartment, three packages, three surfaces.
- **Session:** about five minutes, so comfort matters more than features.

Then the questions to ask before you start:

What "done" looks like

Write acceptance criteria a client can check:

1. The app opens to the living room at eye height within 20 seconds of launch.
2. Three packages switch with one controller press or hand pinch, with no visible delay.
3. Movement is teleport only, to five marked points.
4. Frame rate holds at the headset's target in every room.
5. Staff can reset to the start in one action.

Steps checklist

- [ ] Copy the brief into your notes.
- [ ] List the facts under device, users, action, scope and session.
- [ ] Write five questions for the client.
- [ ] Write five acceptance criteria.

SHIP IT

A one-page brief summary with questions and acceptance criteria.

☐ Shipped. Link or file: _____

Check yourself

1. Why does a five-minute session change your design choices?

2. Why teleport instead of free walking for first-time users?

3. Which acceptance criterion would you test first?

LESSON 2.2 · VIDEO · 45 MIN

Build walkthrough

Follow the build of the configurator from model to headset, and learn the order of work that keeps a Quest 3 project on track.

Key points

The stack

- **Blender** for the cleaned apartment model and finish materials.
- **Unity 6** with the **Universal Render Pipeline (URP)**, the usual choice for standalone headsets.
- **XR Interaction Toolkit** (or the Meta XR packages) for controllers, hands, teleport and UI rays.
- **Android build** for Quest 3 and 3S.

The order of work

1. **Grey-box first.** Import the apartment as plain grey. Put it on the headset on day one. Check scale and comfort before anything looks nice.
2. **Teleport points.** Add five teleport anchors: entrance, living room, kitchen, bedroom, balcony. Test with someone new to VR.
3. **Materials.** Build each finish as a URP material with real-world texture scale. Keep textures at 2048 pixels or less.
4. **The switcher.** One script holds the packages and swaps materials on the right surfaces. A world-space UI panel calls it.
5. **Light.** Bake lighting for the static apartment so it looks good and runs fast. Real-time light costs frame rate on a standalone headset.
6. **Performance pass.** Check frame timing in the headset. Cut draw calls by merging static meshes that share a material.

Things that bite

- **Scale.** Model in metres in Blender. Check a 2.1 metre door in the headset.
- **Text.** Small UI text is hard to read in a headset. Make panels big and close.
- **Comfort.** No moving the camera without the user's action. No sudden fades to white.

Steps checklist

- [ ] Watch the build, pausing after each stage.
- [ ] Note the tool, the time it took and the main problem at each stage.
- [ ] Mark where the build was tested in the headset.
- [ ] Write your own order of work for a two-room version.

SHIP IT

Your two-room order of work, with a headset test after every stage.

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Check yourself

1. Why grey-box and test in the headset first?

2. Why bake lighting for a standalone headset?

3. What makes UI readable in VR?

LESSON 2.3 · READ · 20 MIN

The AI prompts used

See the kind of prompts that speed up a configurator build, and the points where a person must make the call.

Key points

Where AI helps

Materials. An image model can draft tileable textures from a description. You still check scale, seams and colour against the real product.

> Seamless tileable texture, light oak engineered floor, 180 mm planks, matte finish, top-down, even daylight, no shadows, 2048 by 2048.

Code. A coding agent writes the switcher script and the UI wiring quickly.

Where a person decides

- **Product truth.** A generated oak texture is not the developer's oak floor. Final materials come from real product photos or scans, with the supplier's permission.
- **Taste.** Which three packages tell a clear story? Which lighting makes the space feel like home?
- **Comfort.** Only a person in the headset can judge if teleport feels right.
- **Claims.** Never let generated images suggest finishes the developer does not offer.

A simple rule

Use AI for drafts and plumbing. Use people for truth, taste and comfort.

Steps checklist

- [ ] Write one prompt for a texture, one for code and one for copy, for your own configurator.
- [ ] Run them with tools you have.
- [ ] For each result, write what you would check or change before a client sees it.
- [ ] Start an asset log: name, source (photo, scan, generated, made by hand), and status.

SHIP IT

Your three prompts, the results and your asset log.

- [ ] Shipped. Link or file: _____

Check yourself

1. Why can't a generated texture stand in for a real product?

2. What belongs in an asset log?

3. Which decision in this build should never be left to an agent?

LESSON 2.4 · XR · 60 MIN

Extension task

Add a fourth finish option to the configurator and test it in the Quest 3 headset.

Key points

The switcher script

If your project does not have one yet, add this to `Assets/Scripts/FinishSwitcher.cs`. It holds packages, applies one to a set of Renderers, and exposes methods a UI button can call.

Steps checklist

- [ ] Create the new material in URP: base map, normal map if you have one, and the right tiling for real-world size.
- [ ] Select the object holding `FinishSwitcher`. Add a fourth entry to **Finishes** with a label and your material.
- [ ] Add a fourth button to the world-space panel. In its **On Click ()** list, pick the switcher and choose `FinishSwitcher.Apply` with the value 3.
- [ ] Make sure the canvas has a **Tracked Device Graphic Raycaster** so controller and hand rays can press it.
- [ ] Build to the headset (**File → Build Profiles**, Android, then Build And Run).
- [ ] Test: switch all four finishes in each room. Watch for texture scale that looks wrong and for any drop in smoothness.
- [ ] Ask someone new to VR to try it. Note where they hesitate.

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This lesson has code samples. They are in the lesson on metametaclub.com/learn.
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SHIP IT

A short headset recording switching through all four finishes, plus one note from your tester.

- [ ] Shipped. Link or file: _____

Check yourself

1. Why does the script use `sharedMaterial` rather than `material`?

2. What does the button's value of 3 refer to?

3. What did your tester struggle with, and how would you fix it?

PRACTICE QUIZ

Check your module

Circle one answer for each question. The answer key is on the next page.

1. In the configurator brief, why is teleport chosen over free walking?

(A) Teleport is easier to code
(B) Many buyers are new to VR, and teleport is more comfortable
(C) Quest 3 cannot do free walking
(D) The apartment is too small to walk

2. Why bake lighting for a static apartment on a standalone headset?

(A) It looks good and costs far less frame time than real-time light
(B) Baked light is required by URP
(C) It makes textures smaller
(D) It lets buyers move the lights

3. A generated oak texture looks great. Can it be shown as the developer's floor?

(A) Yes, if it looks realistic
(B) Only after a person checks it against the real product and the source is logged
(C) Yes, AI textures are always accurate
(D) Only in AR

4. What does `Apply(3)` do in FinishSwitcher?

(A) Applies the third finish
(B) Applies the fourth finish (index 3) to every target Renderer
(C) Builds the app three times
(D) Resets the scene

ANSWER KEY

Answers and why

1 · B Many buyers are new to VR, and teleport is more comfortable

Short sessions with first-time users put comfort first, and teleport avoids motion discomfort.

2 · A It looks good and costs far less frame time than real-time light

Baking precomputes light, so the headset spends its budget on keeping frame rate high.

3 · B Only after a person checks it against the real product and the source is logged

Product truth comes from real products; generated assets are drafts and must be logged as such.

4 · B Applies the fourth finish (index 3) to every target Renderer

Arrays start at 0, so index 3 is the fourth finish; it is applied to all targets.

NOTES

Build log and notes

SESSION	WHAT I MADE OR LEARNED	NEXT STEP