META-META Club

WORKBOOK · MODULE 4 OF 4

AR on site

XR for the Built Environment. Put the model on a real table or plot with WebXR AR.

Pro studios | 2 lessons | ~3 h | 4-question practice quiz | Notes pages

IN THIS MODULE

AR on site

Put the model on a real table or plot with WebXR AR.

#	LESSON	TYPE	TIME	DONE
4.1	Place the model in AR	XR	60 min	☐
4.2	Ship: configurator or web viewer	PROJECT	120 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 4.1 · XR · 60 MIN

Place the model in AR

Place your building model on a real table with AR, from a web page. Tap where the ring appears and the model lands there at table scale.

Key points

How it works

WebXR's `immersive-ar` mode shows the camera feed with your 3D drawn on top. The **hit-test** feature finds real surfaces: you ask the browser where a ray from the phone meets the world, and it answers with a pose.

Support: Chrome on Android (with ARCore) and the Quest 3 browser support WebXR AR. Safari on iPhone does not support WebXR, so plan a fallback such as a recorded video for iPhone users.

The code

Start from your GLB viewer page and replace its renderer loop with this.

Steps checklist

- [ ] Serve the page over HTTPS. WebXR needs a secure context; `localhost` works for desktop testing, a phone needs HTTPS.
- [ ] Open it in Chrome on an Android phone and tap **Start AR**.
- [ ] Move the phone slowly over a table until the ring appears. Tap to place.
- [ ] Try other scales: 0.01 for 1:100, 1 for full size on open ground.
- [ ] Add one improvement: a soft shadow under the model, or only one placement allowed.

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

SHIP IT

A screen recording of your model placed on a real table.

- [ ] Shipped. Link or file: _____

Check yourself

1. What does hit-test return, and how is it used?

2. Why does the page need HTTPS?

3. What will an iPhone user see, and what is your fallback?

LESSON 4.2 · PROJECT · 120 MIN

Ship: configurator or web viewer

Finish and publish the course piece: either the Quest 3 interior configurator or the floor-plate web viewer, with an AR view if you can.

Key points

Pick your path

- **Configurator.** A Quest 3 build with at least three finish packages, teleport points and a staff reset. Publish a capture video and a write-up. Share the build itself only if every asset is yours to share.
- **Web viewer.** A staged floor plate (or two) with layout toggle and preset views, hosted as a public link. Add the AR placement page as a bonus.

Either way, the building must be yours, a published sample you may use, or anonymised. No client plans without written permission, no real addresses.

The write-up

- The brief in three sentences.
- The pipeline: Plan → Model → Walkthrough → AR, with tools at each stage.
- What AI drafted, what you checked or changed, and your asset log.
- Results against each acceptance criterion: met, partly met, not met.
- One thing you would do next.

How it will be judged

- **Truth.** Does it represent the space honestly?
- **Clarity.** Can a non-expert use it without help?
- **Craft.** Is it smooth on the target device?
- **Process.** Does the write-up show your decisions?

Steps checklist

- [ ] **Re-read your acceptance criteria** from the brief lessons. Turn them into a checklist.
- [ ] **Freeze scope.** List what is in and what is out. Cut anything not needed to meet the criteria.
- [ ] **Finish materials and light.** One pass, judged in the headset or on a phone.
- [ ] **Performance pass.** Headset: frame timing in every room. Web: first frame on a phone over mobile data.
- [ ] **User test.** One person who has never seen it. Watch, don't help. Note where they stall.
- [ ] **Fix the top two issues** from the test.
- [ ] **Capture.** A 16:9 recording of the main route. For the configurator, record in the headset.
- [ ] **Write it up** (below) and publish.

SHIP IT

Your link or capture video, plus the write-up, posted to the course gallery.

☐ Shipped. Link or file: _____

Check yourself

1. Did you test with someone who had never seen the project?

2. Can you show each acceptance criterion met?

3. Do you have the right to share every plan and asset in it?

PRACTICE QUIZ

Check your module

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

1. What does the WebXR hit-test feature give you?

(A) The user's location on a map
(B) Where a ray from the device meets a real surface, as a pose
(C) A 3D scan of the room
(D) The phone's battery level

2. A buyer opens your AR page in Safari on an iPhone. What happens?

(A) It works the same as Android
(B) WebXR AR is not supported there, so you need a fallback
(C) It asks to install an app
(D) It opens in VR instead

3. Why does an AR page need HTTPS on a phone?

(A) WebXR only runs in a secure context
(B) HTTPS makes models load faster
(C) ARCore requires a login
(D) It doesn't need HTTPS

4. Which is required before you publish the final piece?

(A) A real client's logo
(B) The right to share every plan and asset, with no real address
(C) A photoreal render
(D) A Quest 3 build

ANSWER KEY

Answers and why

1 · B Where a ray from the device meets a real surface, as a pose

Hit-test returns poses on real surfaces, which you use to place the reticle and the model.

2 · B WebXR AR is not supported there, so you need a fallback

Safari on iPhone doesn't support WebXR, so plan a fallback such as a video.

3 · A WebXR only runs in a secure context

Browsers expose WebXR only in secure contexts (HTTPS, or localhost during development).

4 · B The right to share every plan and asset, with no real address

Permission and privacy come first; either path (configurator or viewer) is fine.

NOTES

Build log and notes

SESSION	WHAT I MADE OR LEARNED	NEXT STEP