

FIELD GUIDE / 2026 EDITION

AR Furniture Fails on Scale

Why a model that photographs beautifully collapses in a customer's living room, what to fix at modelling time, and when AR is honestly not worth building.

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START HERE

The room is the thing you cannot art-direct

A render is judged against your other renders. An AR placement is judged against the customer's actual sofa, in their actual light, on their actual floor — with a real tape measure sitting in the drawer two metres away. Everything that a controlled image hides, a real room exposes.

Scale is verifiable

In a render nothing is the wrong size, because there is nothing true to compare it with. In a room your armchair is either the same height as the one next to it or it is not, and the customer can see that in under a second.

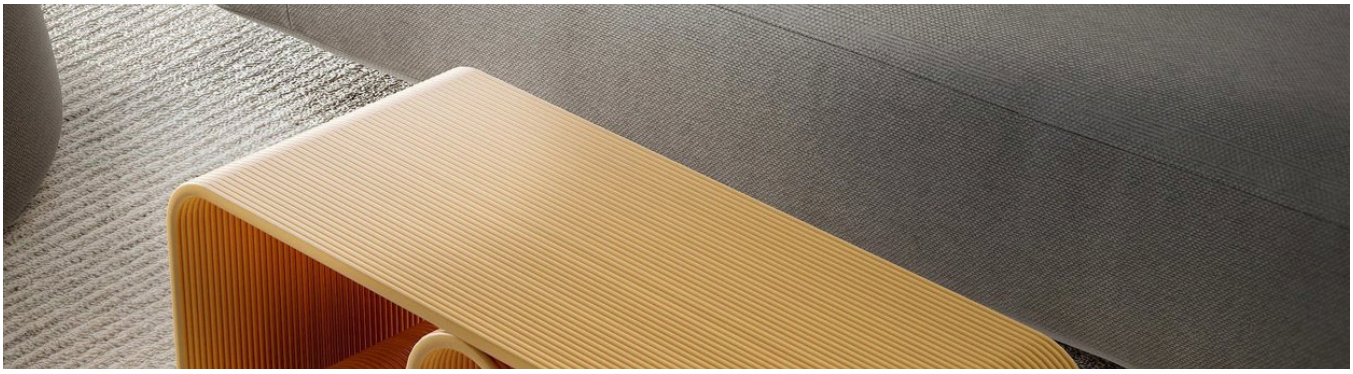
Light is supplied

You do not choose it. A finish tuned under a studio setup can read grey under a north window and orange under a warm bulb. The materials have to behave under light you never see.

Loading is the first test

Before anything is judged on looks, it has to arrive — on a phone, on mobile data, in the few seconds a shopper will wait. A beautiful asset that does not load is a bounce.

This guide is about the product asset: what to specify so one model serves both the campaign image and the AR placement. Whether to build a virtual showroom around it is a separate decision, and a separate guide.



Maverick Frame production render.

STEP 01

Four ways it breaks, in the order it happens

01 Scale, and the origin underneath it

Two separate faults that look identical. The model can be the wrong size, or it can be the right size placed from the wrong point — a dining table whose origin sits at the top of the tabletop floats above the floor at exactly its own thickness. Specify the real dimensions, the units, and that the origin sits at the centre of the base, in contact with the ground plane.

02 Weight, and the network it has to cross

Geometry and textures both count. A three-seater carrying modelled stitching, modelled piping and a full set of large maps per cushion is a download, not a preview. The fix is decided when the model is built, by baking small detail into maps rather than carrying it as geometry.

03 Materials that only work under your lighting

Real-time viewers read a limited set of maps and approximate the rest. A fabric that depends on subtle translucency, a gloss lacquer tuned to a studio reflection, a metal whose character came entirely from the environment you supplied — all three lose the thing that made them convincing. Materials for AR have to hold up with the light removed.

04 Geometry built for one camera

Hero models are honest about this: the back is simpler, the underside may not exist, an edge is sharp because nothing ever gets close to it. In AR the customer walks round it. Anything not modelled is now visible, and so is every open edge and inverted normal.

The order matters

These compound. Fixing scale late is a small job. Fixing weight late means rebuilding materials. Fixing geometry late means rebuilding the model — and at that point you are paying twice for the same product, having already approved it once.

STEP 02

What to specify so one build serves both uses

You are not commissioning two models. You are commissioning one, built to rules that let a lighter version be derived from it. Put these lines in the brief before work starts, not after the first render is approved.

SPECIFY	WHAT TO WRITE	WHAT IT PREVENTS
Real dimensions	Width, depth, height and seat height, from the specification sheet you sell against — not scaled from a drawing.	A product that is convincingly wrong. Nobody catches it until a customer does.
Units and origin	Stated units; origin at base centre, on the ground plane; front face defined.	Floating, sunken and back-to-front placements.
All sides modelled	Back, underside and any surface visible when walked around.	The hollow-back moment, which reads as a cheap listing rather than a cheap model.
Watertight, correct normals	Closed mesh, no inverted faces, no stray geometry inside.	Surfaces that vanish at certain angles in a real-time viewer.
Detail baked, not modelled	Stitching, grain, weave and small chamfers carried in maps where possible.	Most of the weight problem, solved before it exists.
Materials named per finish	One material per sellable finish, named as you name it in the catalogue.	Every future colourway being a fresh job.
A derived light version	Quoted as a deliverable at the outset, from the same source model.	Paying full price twice, months apart.

Send your own product specification sheet with the brief. The single most common cause of a wrongly scaled AR asset is a model measured off a drawing at the wrong scale, or off a photograph, because nobody attached the real numbers.

STEP 03

When AR is not worth building

AR earns its cost when the customer's real question is whether the thing fits. Where that is not the question, it is an expensive feature that looks modern and changes nothing.

YOUR SITUATION	HONEST READ
Large pieces — sofas, beds, wardrobes, dining sets	**Build it.** Fit and footprint are the whole purchase decision, and they are what returns are made of.
Rugs, tables, anything defined by a floor area	**Build it.** Floor area is almost impossible to judge from a photograph.
Small accessories and decorative items	Rarely worth it on its own. Bundle them into a set placement if you build AR for the larger range.
Products bought mainly on finish and texture	Careful. A close-up photograph or a good still tells the truth about a fabric better than a phone viewer will.
Your catalogue changes every season	Cost the whole library, not one hero product. AR that covers a fifth of the range trains customers to expect it and then disappoints them.
No traffic arriving on mobile	Then you are building for a device your customers are not using. Check the analytics first.

The acceptance test, on delivery

- [ ] Placed beside a real object of known size — does it match?
- [ ] Sits flat on the floor, no float, no sink
- [ ] Faces forward when it loads
- [ ] Walk right round it — back and underside hold up
- [ ] Loads on mobile data, not office wi-fi
- [ ] Checked in daylight and under a warm bulb

Run it on a phone that is not new

Everyone tests on the newest handset in the building, and the newest handset forgives everything. Keep an older phone in the office for this one check. It is the closest thing you have to a customer, and it will fail the asset that a review on a current device passes.

Do the same with the light. Approving an AR asset in a meeting room with one consistent ceiling light tells you almost nothing about how the finish reads at home.

WORKING WITH A STUDIO

Cost, and how to brief it

Two things people ask us before anything else. Both answers are short.

COMMISSIONED WORK	FREELANCER	STUDIO
Single exterior still	$100 – 300	$250 – 600
Single interior still	$120 – 350	$300 – 700
Package, 5–8 views	$600 – 1,500	$1,500 – 4,000
Animation, per minute	$1,000 – 3,000	$3,000 – 8,000

Market ranges we are willing to publish. Turnaround and revision-round figures are deliberately not in this table: ours vary too much by project type to state as a benchmark, and an invented number here would be worse than none.

How to brief it — shorter is better

This is the opposite of what most people assume. Four things:

- What you need — **how many images, and of what**
- The plans and elevations, as they are
- A few reference images for mood and light
- One clear line on what the images are *for*

Inflating a small job into a fifty-page specification backfires: taken literally it comes out ugly, and it misleads the people doing the work. Tell them the intent and let the team that does this daily handle the detail.

The mistake that costs the most

The biggest failure we see is not choosing the wrong vendor. It is **timing**. People start looking only after the first supplier has already failed and the deadline is on fire, then choose in a panic.

Line up and vet rendering partners **before** you need one. One, ideally a few, briefed and ready to take work. It costs an afternoon now and saves a project later.

10+
YEARS RENDERING VISUAL STORYTELLING

350+
BRANDS & AGENCIES EMPOWERED GLOBALLY

95%
CLIENT SATISFACTION RATE

40%+
OF OUR COMMISSIONS NOW INCLUDE MOTION OR 360

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When the image has to hold up, talk to us

We are a CGI studio: architectural and product rendering, 3D modelling, animation, 360 tours and VR. Ten years, 350+ brands and agencies, and the kind of work that still looks right when somebody counts the windows.

Send us the plans and a line on what the images are for. You get a scope and a price, and no obligation to use either.

START HERE

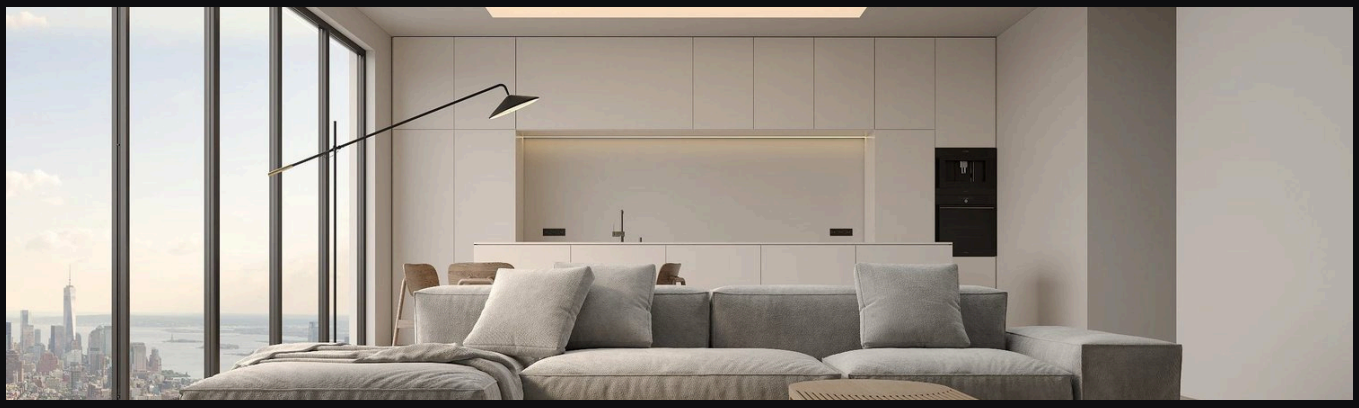
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SEE THE WORK

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Maverick Frame production render. · Cost ranges are market ranges as of 2026 and are not a quotation.