

Build Your Own 3D World with AI

The Book You Can Walk Into

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Edition V6.0 · November 2026

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From your first browser room to a larger 3D space—using AI as your team.

Andy Leong **V6.0 · November 1, 2026**

> *Don't just read how I built it. Walk through it.*

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Build Your Own 3D World with AI — Edition V6.0 (November 1, 2026)
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This is a **living book**. I will update it **every month** so the instructions, images, prompts, and places to visit can keep pace with Sorvian Mall. The scenes and examples describe the world as documented for this edition; a room you visit today may have changed since I wrote about it. That's part of the experience.

Book updates: The book-updates page at **https://sorvian.io/book/** carries edition notes and links to changes. The address is **https://sorvian.io/book/**. Check that page for the newest edition notes; ebook retailers may not automatically deliver revised files to people who purchased earlier editions.

About the real-world examples: Scenes are written from my memory; dialogue is as I remember it, and **REAL PROMPT** exchanges are translated from my saved AI chats. Measurements refer to the stated test conditions, not a guarantee of performance on every device.

Image key: LIVE = captured in the public Sorvian world; **LOCAL QA** = a test or candidate, not necessarily published; **AI CONCEPT** = a proposed design; **OFFLINE** = a nonpublic reference or test. The labels are meant to help you know what you're seeing without interrupting every page with a warning.

Use and safety: The included beginner exercises are educational. Check model licenses before sharing someone else's assets. Keep credentials and personal records out of AI prompts and public project files. Real-money payments and real

restaurant bookings in Sorvian's demonstration systems remain switched off pending the appropriate provider, agreements, and review.

What's New in This Edition

V6.0 — November 1, 2026

First edition (V6.0). This is the starting point for the living-book series.

Future monthly notes will record, in a few lines, newly visitable places, changed screenshots or controls, and a useful real prompt from the development process. They will distinguish what is **live**, what is **being tested**, and what is still **planned**.

Edition notes: https://sorvian.io/book/

Who This Book Is For

I wrote this for the person who has a space in their imagination but doesn't know how to build it: a student who wants to learn how 3D worlds are made, a teacher who wants an exhibition, a creator who wants a walkable gallery, or someone who simply wants to see an idea become a place. You do not need to be a professional programmer. Chapter 1 starts with a single HTML file you can double-click, and a room you can customize without writing code.

If you *are* a developer, I haven't forgotten you. The optional Engineer's Notes, collected at the back of the book, explain the boundaries, debugging, tests, data and performance decisions behind the friendly controls. I want you to see the real work, including decisions that didn't succeed.

This book is not a shortcut around testing, good taste, or responsibility. It is a hands-on account of how I used AI to turn a long-held idea into a walkable 3D world in a browser—and how you can begin with your own smaller version.

How to Use This Book

Each chapter follows a practical rhythm. **First**, visit a part of Sorvian or picture the problem I faced. **Second**, learn one idea without getting buried in jargon. **Third**, see a prompt or a decision from real work. **Fourth**, try a 15-minute exercise on your own starter room. **Fifth**, look at the result and check what actually changed. If you like technical detail, the Engineer's Notes for every chapter are at the back of

the book; if not, you never need them.

You don't have to build the whole mall to learn from it. The downloadable starter begins with one gallery and three sample GLB models. Keep a backup. Give AI one clear job at a time. Make the work visible, then test it as a visitor.

Do I have to pay for anything? The exercises in the first five chapters need no paid tools. Paid tools come later, only when you decide you need them. What I spent on a whole mall is at the end of the book, after About the Author.

Each chapter ends with **Walk into it**—a location in Sorvian where you can examine a real example. Each box has a QR code that takes you straight there. The book is a guide; the mall is the field trip.

The Field Trip — 15 Minutes Inside the Book

Put the book beside your phone. Open **https://mall.sorvian.io/?lang=en#/plaza** and use the in-world directory or navigation controls to explore the stops below. This is a **suggested 15-minute sampler**, not a timed ride; explore longer if something interests you. Each chapter's Walk-into-it box has a QR code that takes you straight to the stop.

Stop	Where to go	What to notice	Read more
1	Plaza	A whole world starts with a legible place to stand and look around.	Ch. 1, 14
2	Sarawak Event Hall, floor 3	Find the hornbill and compare it with the beginner-room sample.	Ch. 1, 5, 6
3	Vibe Coding Bookstore, unit 1-19	Watch how a shopfront tells you what is inside.	Ch. 2, 7
4	Scene Sticker Lab, unit 2-19	Read the floor-plan story in the room's zones.	Ch. 5
5	Store directory / Store Teleport	A pretty scene becomes useful when places can be found.	Ch. 9
6	Glass Water Slide	Notice the view, the ride, and your return to ordinary movement.	Ch. 10, 12
7	Go Kart	See how an original game idea becomes an activity.	Ch. 10
8	Sarawak hosts / NPC avatars	Observe faces, costumes, movement, and the option to appear as an NPC avatar.	Ch. 11

9	2D Lite / lighter entry	Compare fast discovery with a full 3D walk.	Ch. 12, 13
10	Mall front page / Today's Update	See how visitors discover what's new.	Ch. 14

Lighter route: The 3D mall works best on a recent phone or computer. If full 3D is slow, use the available 2D/2.5D lighter paths; the site provides lighter entry options. The English 2D Lite explorer is **https://mall.sorvian.io/mall-lite.html?lang=en**. A picture on the page may differ from the current mall because this book records **November 1, 2026**.

Visitor rule: Enjoy the tour, but don't judge a feature only by how spectacular it looks. Ask whether you understand where you are, what you can do, and how to leave. Those three questions explain a remarkable amount of 3D design.

Fifteen Words Before We Start

For now, just remember four: **GLB, texture, material and fallback**. Come back to the others when you meet them.

Term	Think of it as...
GLB	A suitcase for a 3D object's shape and appearance.
Three.js	The browser's 3D stage crew.
Texture	The printed finish on an object's surface.
Material	The rule for how that finish responds to light.
Mesh	The skin of a 3D object: a surface made of points (vertices), edges and faces.
UV	A flat map that tells the computer where each part of a texture goes on the 3D shape.
Normal	The direction a surface faces. It tells light how to bounce off it. A normal map uses colors to fake small bumps.
PBR	A way to describe a material (color, roughness, metalness) so that light looks natural on it.
Polygon / triangle	A small tile used to build a 3D shape.
Draw call	One instruction the computer sends to draw something.
Frame time	How long it takes to prepare one picture in motion.
CDN	A delivery network that brings a web file closer to its reader.
Cache	A shelf where a device keeps something it has already fetched.

Fallback	A second door when the main one is too heavy or unavailable.
Rollback	Putting back the last working version.

For Teachers: Using This Book in Class

You can use this book to guide a whole class. Here are some suggestions.

- **One mini-project per lesson.** Split Chapter 1 into two lessons. In the first, students open the room and decorate it with the panel. In the second, they save the settings and place the hornbill. Every other chapter is one lesson. You do not need to teach the Engineer's Notes.
- **Students can take part without an AI account.** Most AI chat tools have age rules (check each company's website; under-age students usually need a parent's consent). For a class without accounts, prepare three or four `CONFIG` designs with AI yourself (Chapter 1 has one complete sample) and give them to students to paste. For steps that need AI, show them on the projector, or let groups share an account you prepare.
- **Walk the mall once first.** Before the first lesson, use the projector to take the class through the field-trip route. If the school network is slow, use the lighter 2D or 2.5D version (see "Lighter route" on that page).
- **Backup is the first class rule.** In Chapter 3, students make a copy of `index.html` before they change anything. If something breaks, they copy it back.
- **You can grade three things:** the room opens and can be walked; there is a clear hero object; the student can say which settings they changed and why.

Your Route Through the Book

My story begins with one walkable room and grows into shops, art direction, AI work sessions, a cultural hall, games and the data systems that make a virtual mall useful. Each chapter keeps one first-person story and one result you can build or test in the starter. The optional Engineer's Notes at the back of the book are for readers who want to understand the machinery.

Most mini-projects take 15 minutes. Chapter 1 is a 30-minute challenge. In Chapter 6, if it is your first time with Blender, allow about 40 minutes, including the install. The last column shows the tools each chapter needs.

> ***Want to start building?*** *Jump to Chapter 1 and come back in 30 minutes.*

#	Chapter	Story hook	Your mini-project	Tools you need
1	**Your First 3D Room in 30 Minutes**	The hornbill from my Sarawak hall becomes the first thing you display.	Customize a one-file gallery, use AI on `CONFIG`, and place a Sarawak GLB on the pedestal.	Starter room; AI chat (optional)
2	**Why AI Worlds Look Cheap — and How to Make Yours Beautiful**	"You only added a tiny bit" taught me to redesign, not merely decorate.	Run a same-camera shop before/after and a five-second recognition test.	Starter room
3	**Vibe Coding Without Losing Control**	I demanded a proper repair loop instead of another installer.	Plan, inspect a diff, back up, make one change, verify, and roll back.	Starter room; AI chat
4	**Your AI Team: Roles, Modules and a Second Brain**	The second brain let a new CTO read the project instead of making me retell it.	Create a three-file project memory and run Planner → Builder → Checker.	AI chat; Notepad
5	**Plan the Space Before You Decorate It**	My sticker shop, bookstore and Sarawak hall began as floor plans, then concept images.	Mark a visitor route, request a measured concept, and adjust a light to serve it.	An AI chat that can make images

6	**Make and Fix Your Models: Meshy and Just Enough Blender**	"It's a 3D model, not a photo!" became a practical asset workflow; the zombie teeth forced a beauty gate.	Stand the sideways hornbill from the download upright, and test it on the pedestal.	Blender (free); Meshy (optional)
7	**Build a Shop People Want to Enter**	The Vibe Coding Bookstore needed a reason to browse, not just shelves.	Turn the room into a showroom with one clear featured object and next action.	Starter room
8	**Import Models Without Breaking the World**	Adding one more beautiful object can ruin movement or performance.	Replace an asset, walk-test it, and write an import receipt.	Starter room
9	**The Brain Behind the 3D: Back Office, Data and Templates**	Behind each beautiful storefront is a catalog, a set of roles, and the decision not to enable real-money checkout yet.	Build a device-local visitor book with an honest demo admin view.	AI chat; Notepad
10	**Make It Fun to Walk: Movement, Rides and Guides**	The slide, games and Store Teleport taught me to design entry, action and return.	Plan and test a three-stop walking tour without modifying core controls.	Starter room; AI chat
11	**Characters Who Belong: Crowds, Behavior and Cultural Hosts**	Sarawak hosts need natural movement and respectful presentation, not just an attractive face.	Observe an NPC in context, check its movement and cultural presentation, then write specific QA feedback.	Phone or computer (the mall)
12	**When Things Break: Three Real Rescues**	A failure report only becomes useful when it leads to a tested repair.	Perform symptom → wrong guess → cause → fix → verification.	Starter room; browser F12
13	**Make It Fast: First Paint Is Not Walkable**	A visitor's iPhone could crash before the 3D world became usable.	Measure display time separately from first movement and reduce one real cost.	Chrome F12
14	**Put It Online and Bring People In**	I used AI-assisted clips and music to help people discover a world I had built.	Publish the starter, validate the URL and QR, then plan one short video.	Free website hosting

Epilogue	**The Road Turns: Keeping the Dream Alive**	Malaysia edition → international skyline → a Sarawak hall built for a real conversation.	Write one invitation and choose one small visitor experiment.	None

The previews of the next two books (games and rides, and marketing) are at the end of the book, in "What's Next."

All fourteen chapters are included in this V6.0 edition, followed by the Epilogue, prompt cards and technical reference.

Before you read another page, open **https://mall.sorvian.io/?lang=en#/plaza** on your phone. Look for the Sarawak Event Hall. Find the hornbill. That sculpture is part of the world you're about to read how I built, and a version of it is waiting in the starter project so you can place it in your own first room. You can also visit the bookstore, discover the games and try the lighter mall if the full 3D view asks too much of your device.

Most books can only show you photographs of what the author made. **This is a book you can walk into.** The mall keeps changing as I keep building, and I will update the book every month to follow it. You're holding **V6.0, November 1, 2026**. You may find a newer design when you visit. I hope you do. I want you to see the idea moving, not frozen on a page.

Prologue — From Watching a Dream Get Shelved to Building It Myself

By Andy Leong

> ***Want to build first?*** *The Prologue is my story, about ten pages. If you want to make something first, jump to Chapter 1 and come back in 30 minutes.*

Past midnight, the mall was still open on my computer. Not a real mall with a security guard and tired cleaners, but the place I had wanted to make for years. On my screen, my character stood in a lit plaza. I pressed a key, watched him begin walking, turned a corner, then took the same route again, slowly enough to look at the shops. In the early days I could only show people pictures of what I imagined. That night I was walking through something I had helped build.

I reached for the screen-recording button. I wanted to show someone close to me that this wasn't just another presentation. I sent the clip, then watched it again myself. My shoulders were tired and my eyes were dry from the screen, but I was grinning. I couldn't sleep.

I can actually do this.

Before I could build, I could only believe

When I was a kid, I taught myself basic HTML and PHP. I liked the idea that a few instructions could make something appear on a screen. But I was never a professional programmer, and I knew nothing about 3D development. My dream was larger than my skills: take real places into a virtual world so someone at home could browse shops, discover products, meet friends, interact, and then shop online. I wanted the internet to have corners you could turn and places you could remember.

In early 2024, I joined eBitron as Business Development Director. Its team was building a 3D mall called **DeWorld**. I believed in it and promoted it

enthusiastically. Sometimes I stood on a stage speaking about what this virtual place could become, while knowing that I couldn't build the place myself. When the company ran short of funds, the project was paused. I later left, taking the idea with me like a shop sign still glowing after the building has closed.



ARCHIVE 2024 Archive photo, 2024

At the time, a serious mall needed a funded development team. I couldn't hire that team simply by wanting the dream badly enough. For a while I had to accept that the project was sitting on a shelf.

The night the tools finally caught up

In early September 2026 I saw a level of AI-assisted 3D creation that made me stop scrolling. GPT-6 Astra was released on September 3, 2026, and that September breakthrough brought my old excitement rushing back. I still couldn't suddenly write a professional 3D engine, but I could now ask AI to help me design and build. I began with ChatGPT and Codex; when image-like prototypes couldn't give me the quality I wanted, I looked for specialist 3D tools.

One of my earliest messages to ChatGPT was blunt: **“It's a 3D model, not a photo!”** I had asked for a 3D object and kept getting images. That distinction sounds small until you try to walk around a photograph. Then I tried Meshy and wrote, **“I tried Meshy. It's very fine, very beautiful.”** For the first time, I could see a practical way to make the objects I'd pictured.

The work wasn't smooth. I worked full-time, day and night, and barely slept some nights. My AI limits could run out in about two days; I would use the downtime to plan in ChatGPT and return to execution when the allowance reset. Around October I moved much of my coding workflow to Claude Code, after going in circles on some changes with Codex. That switch helped *my* project get closer to the visual quality I wanted. I wasn't trying to win an argument about which AI was best. I was trying to get the doors open.

One night, a simple typo turned into an absurd battle. My project had folders named `app-review` and `app-preview`. The installer kept looking in one while the working code lived in the other. A single letter sent us through repeated failed attempts. Finally I wrote: **"Why are 'preview' and 'review' so close? You make such a basic mistake. I didn't sleep all night catching bugs with you. It's really unfair."** It was the kind of problem that makes a person doubt whether AI has saved any time at all. I learned to ask it to check the *actual running files*, test in a loop, and only then give me something to install.

The next forty-eight hours

After that first walk through the mall, my mind did not slow down. I showed the recording to someone close to me, then returned to the screen, looking at what still felt unfinished. The next day I wanted more: better places to sit, stores that looked familiar, attractions visitors could actually use. At one point I shared a video of progress with ChatGPT, and the reply immediately turned into another list of repairs. I typed, **"Actually I'm not asking what you can do. I'm showing you our progress."** I wanted one moment to be proud of what existed.

And then, almost immediately, I was imagining more. I asked, **"I think our avatar can click a chair and sit down."** Later I found myself planning a theme park nearby, with racing and a Ferris wheel, and thinking about how the mall could feel more like a game. My brain was behaving like a child who had just discovered a box of building blocks and wanted to construct an entire city before breakfast. That excitement was real. So was the risk of asking AI to begin ten projects before finishing the one that mattered.

The question at the dining table

I remember the laptop open on the dining table late at night. Someone in my family looked from the screen to me and asked, **"You've been at this every night. Where is it going?"** It was direct because the concern was real. I had already watched one version of this dream stop.

I couldn't answer by pointing to a lovely screenshot. I explained that I could now show the world itself, teach the process I'd learned, and give other people a way to try it. **“Sorvian Mall is my biggest portfolio,”** I said, **“because I've already built it.”** The idea of Sorvian Academy came from wanting this work to become useful to other people as well as to me. My family still had reasons to worry, and I still had work to do.

Someone else had asked a question that stayed with me: **“A virtual space like this—does anyone want it? Will anyone come?”** I had filled the mall with beautiful shopfronts. Then one night I walked through it as a visitor, from end to end, and saw the problem: the shops looked good, but there was little to do inside. Beautiful was not the same as a reason to come in.

I could keep making the empty units prettier, or I could give people reasons to visit first. I returned to the ideas I had been scribbling about races, a theme park and games. **“Think again: treat our Sorvian Mall as a game,”** I had asked ChatGPT. **“What else could members interact with, like a game, so they keep coming back?”** I wanted a place visitors would choose to return to. 路不转，人转 — **If the road won't turn, the person turns.**

The earliest edition celebrated Malaysia with four Kuala Lumpur landmarks. Later I added some of the world's tallest buildings for an international edition. Then I found myself coming home again, this time to Sarawak. A cultural exhibition with a hornbill, Kuching cats, traditional gongs, crafts and hosts felt like the kind of place I had imagined before I knew how to make it.

On **October 31, 2026**, at **1:48 p.m.**, I was back at my computer asking for another floor plan. My partner might be meeting the Mayor of Kuching that Monday. Instead of another pitch deck, I wanted the people in that room to see what Sarawak culture might look like inside Sorvian. I asked AI to turn the floor-three exhibition hall into a cultural space with the state flag, a hornbill, cats, music, crafts and Sarawak's communities. By about **7:45 p.m. the same day**, the first version was live. When the images arrived, the yellow of the flag and the hornbill standing inside my own mall made me stop and stare. I sent a screenshot to my partner. For once, the proposal was something you could walk through. **As I write this on November 1, the possible meeting with the Mayor of Kuching is tomorrow, Monday, November 2.** The hall is a way to introduce Sarawak culture to city leadership and open a conversation about future exhibitions and partners. I have a place to show them; I do not yet have an answer.



LIVE Sarawak Hall welcome gate

A room, not an empire

I once believed I needed a whole team before I could begin. Then I discovered that the bigger obstacle was making too many decisions at once. When I asked AI for everything, I sometimes received a jumble of features. When I made one clear decision, tested it, and kept the part that worked, the world gradually became mine.

So I'm not going to open this book by asking you to build a mall with a hotel, a concert, games, and an observation tower. You will open a single gallery. You'll change its colors, place a real 3D object on a pedestal, and walk around it. We'll improve its design, make controlled AI changes, plan a visitor route, create models, and eventually put the same room online.

You bring the idea. AI can help with the building. And once you've walked inside something you imagined, you'll understand why I couldn't go back to looking at a flat picture.

Chapter 1 — Your First 3D Room in 30 Minutes

You will not draw a room. You will walk inside one, change it, and put a piece of Sarawak on display.

The Story: A Bird with Two Homes

I want you to begin with something that actually belongs to the world I built. Inside Sorvian's Sarawak Event Hall, visitors can find a hornbill sculpture, a set of traditional gongs, and a sculpture celebrating Kuching's cats. Those objects matter to me because I want the mall to introduce places and cultures, not simply display products. Today, you can bring the same models into your own room.

The starter is much smaller than my mall. It is a first-person gallery: there is **no visible avatar**, no door to open, and no complicated software to install before your first walk. You begin inside a room with a plank floor, windows, a navy-and-gold sign, two benches that stop you when you walk into them, warm ceiling lights, and a white pedestal with a gold ring. At first, a gold gem turns on the pedestal. Soon you will replace it with a hornbill.

The room already works. Your job is to make the first decisions that turn a sample into a place you would be happy to show someone. I can explain every button, but I would rather you feel the small surprise of changing a room and watching it respond.

> ***Andy's Note*** *When you're designing an exhibition, the object is only half the work. The other half is how someone discovers it. If your visitor can't tell what they're supposed to look at, buy fewer decorations and give the important thing some breathing room.*

The Big Idea: A Room Has Three Jobs

Let people see. The walls, floor, sky beyond the windows, lighting and sign give your room a mood. In this starter, you can adjust those with a panel, so there is no need to hunt through code on your first day.

Give them a reason to look. The pedestal is the focal point. A 3D object often arrives as a **GLB**, a single file containing a model's shape and appearance. The starter can load a GLB you drag onto the page or one of its included samples.

Let people move. Keyboard keys move your viewpoint; your mouse or finger changes where you look. This is a *walkable room*, not a rotating picture. The movement works because of Three.js, a JavaScript library that draws 3D scenes in a browser. You do not need to program Three.js to complete the challenge.

The 30-Minute Build

Minutes	Action	The visible win
0–5	Open and meet the hornbill	Place a real Sarawak sculpture in the room, then walk around it.
5–10	Customize room	Your sign and lighting mood change instantly.
10–20	Let AI suggest a `CONFIG`	Your chosen look survives a save and refresh.
20–25	Compare a second Sarawak model	Try the gongs or cats, then return to your favorite.
25–30	Take and show a picture	You have your first shareable room.

Minutes 0–5 — Open the room, not a coding tutorial

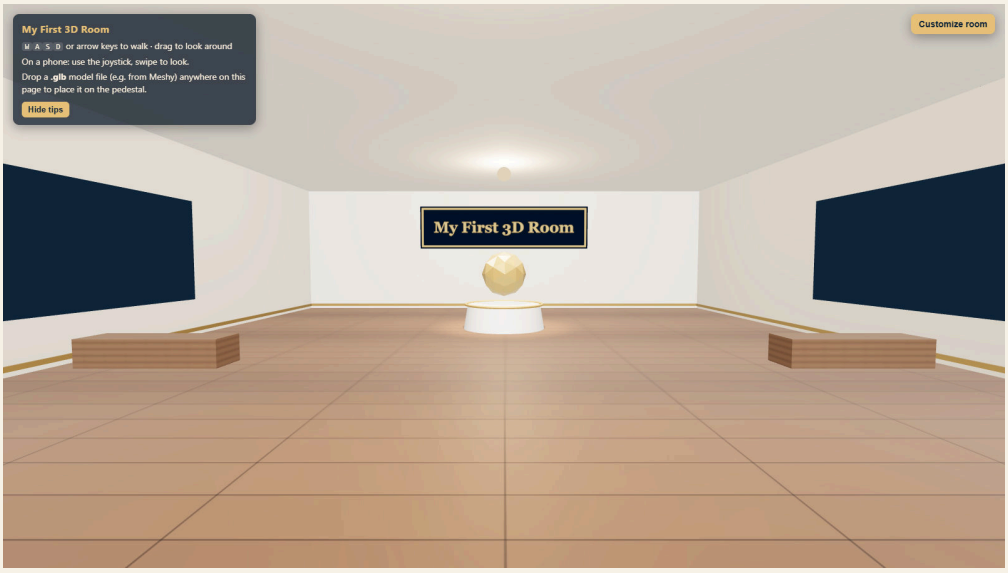
On a computer, open **https://sorvian.io/book/starter**, download the starter ZIP, and unzip it. **Double-click** `index.html`. A current Chrome, Edge, Firefox, or Safari 16.4+ can open the room. The first load needs an internet connection because Three.js comes from a **CDN**, a service that delivers the library to your browser. You do **not** need a local web server or an installed coding environment for this exercise.

Your first two-minute win: Open **Customize room** and choose **Try a sample model → Hornbill** if you are on the hosted page or phone. If you double-clicked `index.html` on a computer, open the ZIP's `models` folder and **drag** `sample-hornbill.glb` **onto the page**. The hornbill replaces the turning gem. This is the same Meshy model used in my Sarawak Event Hall. After this, walk around your first real exhibit.

You appear inside the gallery near its front window wall. Press **W, A, S, D** or the arrow keys to move, and **drag the mouse** to look. Walk toward the gem, then look back at the windows. The gold-lettered sign sits on the far wall. Try walking into a bench: it blocks your path, so you must go around. The room responds to what you do. I think about an early moment when I asked AI whether an avatar could sit on a

chair. It looked like a tiny interaction, but it could swallow a surprising amount of development time. For now, walking **around** a bench is enough to prove the scene is responding correctly.

On your phone: Open **sorvian.io/book/starter** directly. Move with the joystick at bottom-left and swipe to look around. Tap **Customize room** to change the design, then use **Try a sample model → Hornbill / Gongs / Cats** to place a sculpture. **Only editing `index.html` to make settings permanent needs a computer.** The visual challenge works right on your phone; the sample buttons work there because you are using the hosted page.



LIVE original starter gallery

Your first result: Look from the front window toward the hornbill and notice how the same sculpture changes when you move around it.

Checkpoint: You can reach the pedestal, look around, and walk past a bench without getting stuck.

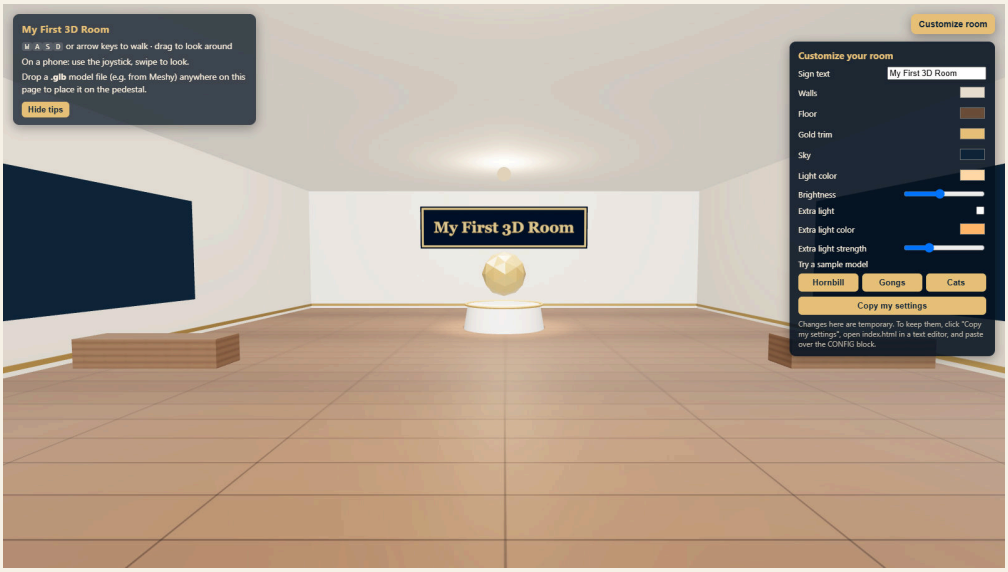
Minutes 5–10 — Give the room your own name

Choose **Customize room** at the top-right. The panel lets you edit the **sign text, walls, floor, gold trim, sky, light color, brightness, extra light on/off, extra-light color, and extra-light strength**. You see changes immediately. The **Copy my settings** button copies a ready-to-paste `CONFIG` block **with the original one-line comments**, in the same order and wording as the file.

Try calling the room **The Night Gallery**. Pick deep navy walls, a restrained warm-gold trim, and lower brightness to soften the room's reflections. Then change **Sky**

to a dark shade too: the windows show that independent sky color, and the brightness slider does not darken it for you. Set **Extra light** to on (`extraLight.enabled: true`) and try a warm color; its position is left of the pedestal, so its glow changes the sculpture's shape from one side. You have the beginnings of a nighttime gallery without writing a line of code.

Take a quick screenshot now. It will be useful when you decide whether your AI design is actually better. Click **Copy my settings** and leave the copied settings ready for the next step.



LIVE Customize room panel

Checkpoint: Your sign is yours, the windows feel like night, and the extra light can be turned on and off.

Minutes 10–20 — Give AI one safe decorating job

Now we're going to ask AI for a mood, then keep *only* the settings we approve. Open the extracted folder. To view the file as text, right-click `index.html` and choose **Open with → Notepad** (Windows) or **TextEdit** (Mac); on a Mac, use TextEdit's plain-text mode so it doesn't save rich text. Find `const CONFIG = {` near the top of the file.

Four actions. That's all:

1. **Copy** the entire `CONFIG` block, from `const CONFIG = {` through its closing `};`.
2. **Paste** it into ChatGPT or Claude with **Card 1** below.
3. **Replace** the old block in `index.html` with the complete returned block.

4. **Refresh** your browser after saving with **Ctrl+S** (Windows) or **Cmd+S** (Mac). Use **F5** (Windows) or **Cmd+R** (Mac) to reload.

Card 1 — CONFIG-only makeover

> *Here is the full* `CONFIG` *block from my working gallery. Make it a calm nighttime jewelry boutique: deep navy walls, restrained warm gold, gentle light, and one clear focal object. Change VALUES inside* `CONFIG` *only. Preserve every key and original comment exactly, and do not change room dimensions, movement, geometry, the model loader, or JavaScript outside* `CONFIG`*. Set* `extraLight.enabled: true` *if changing its color or strength, and keep Sky dark for nighttime windows. Return only the complete valid* `const CONFIG = { ... };` *block.*

If the AI cannot see enough context to return valid settings, **paste the entire** `index.html` **into the chat** (remove anything private first) and say: "Read this file; return only a replacement `CONFIG` block, with the exact same keys and comments. Do not return the whole page."

The AI is helping you choose a look, not rebuilding your gallery. If you prefer the design you made with the buttons, you can paste your **Copy my settings** result instead. The important test is that after you save and refresh, your chosen appearance remains and the keyboard or joystick still works.

```
const CONFIG = {
  roomTitle:      "My First 3D Room",   // the sign on the back wall and the tips box
  wallColor:      "#e8dfd0",           // warm plaster
  floorColor:     "#6b4f3a",           // walnut
  accentColor:    "#e9c27a",           // gold trim, pedestal ring and sign
  skyColor:       "#0f2539",           // what you see through the "windows"
(background)
  lightWarmth:    "#ffd9a8",           // color of the ceiling lights
  lightStrength:  1.2,                 // 0.2 = moody, 1.2 = gallery, 2.5 = very bright
  extraLight: {                        // Chapter 1: switch on a second light
    enabled:  false,                   // true = on, false = off
    color:    "#ffb86b",               // warm amber
    strength: 1.0,                     // 0.5 subtle, 1.0 clear, 2.0 strong
    position: [-4, 2.5, -3]            // [left/right, height, front/back] in meters
  },
  roomWidth:      14,                  // meters
  roomDepth:      18,                  // meters
  walkSpeed:      3.2,                 // meters per second
  modelUrl:       "",                  // optional, only works when the room is hosted
online
  modelHeight:    1.6                  // dropped models are scaled to this height
(meters)
};
```

You can also copy a complete sample. Don't want to adjust anything yourself,

and have no AI account? Select all of the block below and copy it. Replace the old block in the file with it. Start from `const CONFIG = {` and go all the way to `};`, including those two lines. Save and refresh. You get a night jewelry boutique:

```
const CONFIG = {
  roomTitle:     "My Night Gallery",
  wallColor:     "#1b2a4a",
  floorColor:    "#2a2420",
  accentColor:   "#e9c27a",
  skyColor:      "#070d1a",
  lightWarmth:   "#ffd9a8",
  lightStrength: 0.6,
  extraLight: {
    enabled: true,
    color: "#ffb86b",
    strength: 1.4,
    position: [-4, 2.5, -3]
  },
  roomWidth: 14,
  roomDepth: 18,
  walkSpeed: 3.2,
  modelUrl: "",
  modelHeight: 1.6
};
```

If the room turns completely black or you cannot walk after pasting, you most likely missed the last `};`, or you also selected one line too many below it. Copy your backup back and paste again.

> ***It's fine if saving did not work.*** *If you are stuck here, skip to the next section and place the hornbill. The changes you made in the panel still show. You can come back and save the settings after Chapter 3.*

Checkpoint: The new design survives refresh, and your controls still work.

Minutes 20–25 — Try the gongs and cats

In the ZIP's `models` folder, you'll find `sample-hornbill.glb`, `sample-gongs.glb`, and `sample-cats.glb`. The hornbill is a sculpture, the gongs are a Borneo gong set, and the cats celebrate Kuching. They are the same Meshy models used in my Sorvian Sarawak Event Hall. When using the **hosted web page or a phone**, choose one under **Customize room → Try a sample model**. **When you double-click the local `index.html` file**, these buttons instead tell you to **drag the corresponding `.glb` file from `models` onto the page**. This is expected: the buttons need an `http(s)` page.

If you chose the hornbill at the start, now try the gongs and cats and return to your favorite. If you skipped it, choose the hornbill now. Watch the current model

disappear and the new one appear on the pedestal. The starter turns it slowly **in place**. The **entire turning footprint stays on top of the pedestal**. The hornbill stands **1.6 m** tall, the cats about **1.45 m**, and the wider gongs about **1.1 m**. The width limit keeps the display from sweeping beyond its base. The actual model arrives with its own material and texture, not merely a colored placeholder.

Walk to one side and look back at the sculpture. This is the payoff I wanted to give you: **the hornbill on your pedestal is the same one visitors see in my Sarawak hall.** You have already brought a small piece of the Sarawak exhibition into a room you control.



LIVE hornbill on the pedestal

Checkpoint: The hornbill rotates about its own center and remains entirely on the pedestal.

Minutes 25–30 — Your first postcard

Find an angle that shows the sign and pedestal together. Take a screenshot and name it `my-first-gallery.png`. Send it to someone you trust with a simple invitation: *"This is a 3D room I customized. What do you notice first?"* Ask for one honest observation, not a five-star rating. If they notice the hornbill, your focal point is working. If they notice an overly bright ceiling first, you already have an idea for Chapter 2.

Remember that a dragged GLB is **not stored in the HTML file**. If you refresh, you may need to drop it again or use the sample-model buttons on the hosted version. Your saved `CONFIG` remembers the room's design; it doesn't secretly upload

a dropped model. A `modelUrl` setting exists for automatic model loading **when the room is hosted online**, which we'll address when you publish.

Quick Rescues: When Something Doesn't Work

What you see	What to do
Black or empty screen	The first load fetches Three.js from the internet. Check your connection and try a current Chrome, Edge, Firefox, or Safari 16.4+.
The page opened as code	Open `index.html` with a browser, not Notepad or TextEdit.
A color didn't change after editing	Save with Ctrl+S/Cmd+S, refresh with F5/Cmd+R, and check that you edited the opened copy. For nighttime windows, also darken **Sky**.
Pasting AI's settings broke the page	Undo. Select the entire old block from `const CONFIG = {` through `};`, then replace that entire block once; do not paste a block inside another. Reject renamed keys or a whole HTML page.
The hornbill button doesn't load locally	In a double-clicked file, the sample button shows a message; drag `models/sample-hornbill.glb` onto the page. The one-tap buttons work on the hosted page or phone.

Other fixes, including missing dropped models after refresh, sideways imports, and touch-control troubleshooting, are in the back-of-book help section.

Mini Post-Mortem: The Model That Orbited

This is a real fault we fixed while preparing the starter for this book. It is also a perfect example of why the first explanation isn't always the right one.

The detective question	What happened
Symptom	A dropped model swung in a circle around the pedestal instead of turning neatly on the spot.
Wrong guess	The GLB file must be broken.
Real cause	The model's center wasn't at its own origin. Rotating the model made it travel around that displaced center.
Fix	Wrap the model in a pivot group at the pedestal's center and rotate the **pivot**, not the misplaced object origin.
Result	The model turns in place. The bird no longer flies in a circle it never asked to join.

One more real starter repair: Moving with the on-screen joystick while swiping to look once made the view jitter. The code had treated touches too broadly. The fix limited joystick movement to fingers that **began on the stick** (`targetTouches`), tracked the look gesture by one `pointerId`, and reset the stick on `touchcancel`. For a mobile visitor, independent thumbs are a feature, not a luxury.

The actual repair (trimmed starter code):

```
// a pivot at the model's center, so it spins on the spot instead of orbiting
  const pivot = new THREE.Group(); pivot.position.y = 0.6; pivot.add(obj);
  pedestal.remove(current);
  // free the old model's memory: geometry, every texture slot (color, normal,
roughness...), then the material
  current.traverse(o => { if (o.isMesh) { o.geometry.dispose();
[].concat(o.material).forEach(m => { Object.values(m).forEach(v => { if (v &&
v.isTexture) v.dispose(); }); m.dispose(); }); } });
  current = pivot; pedestal.add(pivot);
```

The same principle protects the **Extra light** switch. In a Three.js scene, adding or removing a light can change the shader configuration and cause a visible pause while shaders recompile. The starter keeps its point light in place and switches its **intensity** instead. You get an instant visual change without rebuilding the light setup each time.

Try It in 15 Minutes: Your First Visitor Test

This is a new skill, not another round of choosing paint. Ask someone who has not been watching you edit the file to try your room. On a computer, have them open the same starter; on a phone, send them the starter page and ask them to tap the hornbill sample. Do not tell them where to walk for the first minute.

Minutes 1–5: Watch what they try. Do they notice the joystick? Can they find the pedestal? What do they try when they encounter a bench? **Minutes 6–10:** Ask one question: *"Where did you expect to go next?"* Write down their answer without defending the room. **Minutes 11–15:** Make a single small improvement—perhaps clearer sign text or a more visible featured object—and keep the version that solves their actual confusion.

This is where building becomes different from decorating. Someone else is using the thing you made. Your most valuable next idea may come from watching where they hesitate.

> ***Technical details:*** *see Engineer's Notes, Chapter 1, at the back of the book.*

One-Page Recap

One thing to remember: You made a room respond to your decisions—and you watched somebody else use it.

- ☐ I opened the gallery by double-clicking `index.html`, or used its hosted phone version.
- ☐ I moved in **first person** and understood where the visitor starts.
- ☐ I used **Customize room**, including Sky and Extra light, and copied my settings.
- ☐ I changed only `CONFIG`, saved, refreshed, and kept the controls working.
- ☐ I put a Sarawak model on the pedestal and shared a picture or a first visitor test.

In the next chapter we'll tackle something surprisingly difficult: a world can be full of nice objects and still feel cheap. I learned that the hard way, with some very unhappy messages to my AI assistant.

Walk into it

Visit the **Sarawak Event Hall** and find the **hornbill sculpture**. You placed the same model on the pedestal of your starter gallery; now see how a single asset can become part of a much bigger environment.

Walk into it: Sarawak Event Hall hornbill
Look for: compare the starter pedestal model with the hall exhibit
https://mall.sorvian.io/?lang=en#/place/fair3-hornbill
Checked live on November 1, 2026.

End of the free sample.

The full book continues with 13 more chapters: making your room beautiful, directing an AI team, Meshy and Blender models, shops, phones, publishing and more.

Build Your Own 3D World with AI - on Kindle, US\.99.