META-META Club

WORKBOOK · MODULE 2 OF 3

Fly-through technique

Large Scenes and Cinematic Fly-throughs. Metameta Night week 8: a 30–60 second fly-through.

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

IN THIS MODULE

Fly-through technique

Metameta Night week 8: a 30–60 second fly-through.

#	LESSON	TYPE	TIME	DONE
2.1	Demo: fly-through technique on a generic masterplan	LIVE	25 min	☐
2.2	Build-along: a 30–60 second fly-through clip	LAB	55 min	☐
2.3	Critique: pacing, framing and story	LIVE	25 min	☐
2.4	Ship it: showcase night	PROJECT	15 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 · LIVE · 25 MIN

Demo: fly-through technique on a generic masterplan

Watch a fly-through get made, live, from an empty camera to a finished clip. The scene is a generic masterplan: blocks, roads, trees and a central park. No client, no real site. The point is technique you can use on any large scene. If you missed the live session on the Metameta Club Discord, watch the replay and pause at each step.

Key points

What a fly-through is

A fly-through is a guided camera move through a 3D scene. It is not a tour of everything.

Three ideas carry the whole demo:

- **One move per shot.** Push in, orbit, rise or track. Never all four at once.
- **Lead with context, end on detail.** Start high and wide so people know where they are. Finish close on the thing that matters.
- **Slow is expensive-looking.** A camera that moves too fast feels cheap and makes people sick in a headset.

What the demo covers

1. **The shot list.** Four or five shots written as one line each before touching Blender. For example: "Wide establishing orbit over the whole site, 8 seconds."
2. **The camera rig.** A Bezier curve for the path, a camera with a **Follow Path** constraint, and a **Track To** constraint aimed at an empty. Move the empty and the framing follows.
3. **Timing.** Keyframing the path's offset, then shaping the motion in the Graph Editor so it eases in and out.
4. **Lens choice.** A 24–35 mm lens for wide context, 50 mm or longer for detail shots.
5. **A fast draft render.** Eevee at half resolution to check pacing before any final render.
6. **Cutting.** Joining the shots in Blender's Video Sequencer with simple cuts.

Steps while you watch

1. Open the starter masterplan file from the session thread.
2. Write your own five-line shot list while the demo runs.
3. Note the frame count and focal length used for each shot.
4. Write down one question for the critique block.

SHIP IT

Post your five-line shot list in the session thread. You will build at least two of those shots in the build-along.

☐ Shipped. Link or file: _____

Check yourself

1. Can you say what one camera move each of your shots uses?

2. Do you know why the camera aims at an empty instead of being rotated by hand?

3. Can you explain why the first shot is usually wide?

LESSON 2.2 · LAB · 55 MIN

Build-along: a 30–60 second fly-through clip

Build and render a 30–60 second fly-through of the starter masterplan, or of your own scene. You leave with an MP4 you can post tonight.

Key points

The plan

Keep it to three shots: a wide establishing orbit, a slow push along the main street, and a close finish on one detail. At 30 fps, 45 seconds is 1,350 frames.

Render settings

PNG frames are safer than a direct video file: if Blender crashes at frame 900, you keep 899 frames.

Run it headless with `blender -b masterplan.blend -P render_setup.py`, then render with `blender -b masterplan.blend -a`.

Turn the frames into an MP4 that plays everywhere:

Steps checklist

- [ ] Open the starter file in Blender (4.2 or newer).
- [ ] Add a **Bezier Curve** and shape it over the site. Keep the curve smooth, with few points.
- [ ] Add an **Empty** where you want the camera to look.
- [ ] Add a **Camera**. In Object Constraints add **Follow Path** (target: your curve, tick **Fixed Position**) and **Track To** (target: the empty, Track Axis **-Z**, Up **Y**).
- [ ] Keyframe **Offset Factor** at 0 on the first frame and a higher value on the last frame of the shot.
- [ ] In the Graph Editor, check the curve eases in and out. No sudden starts.
- [ ] Repeat for shots two and three with a new camera each. Bind each camera to its start frame with **Marker → Bind Camera to Markers** in the Timeline.
- [ ] Run the render setup below, then render with **Render → Render Animation**.

This lesson has code samples. They are printed in full in the lab handout (large-scenes-fly-throughs-lab-2-2.pdf) and in the lesson on metametaclub.com/learn.

SHIP IT

A 30–60 second `flythrough.mp4` with at least two shots, ready for the critique.

- [ ] Shipped. Link or file: _____

Check yourself

1. Does every shot have a single, clear camera move?

2. Did you render a half-resolution draft before the full render?

3. Does the MP4 play on your phone?

LESSON 2.3 · LIVE · 25 MIN

Critique: pacing, framing and story

Show your fly-through and get feedback on craft and taste, not only "does it render". Volunteers share their screen on the Discord Stage or post a link in the session thread. Doing this on your own? Post your clip and ask for feedback with the rubric below.

Key points

How the critique runs

Each volunteer gets about four minutes. Play the clip once with no talking.

Feedback is about the work, never the person. Be specific.

The week 8 rubric

Score each line from 1 to 3 in your head as you watch.

- **Orientation.** After the first shot, do I know where I am and how big the place is?
- **One move per shot.** Is each camera move clear, or is it pushing, turning and rising at once?
- **Pacing.** Can I read what's on screen? Does the motion ease in and out, or start and stop with a jolt?
- **Framing.** Is the subject placed with intent? Is the horizon level? Any shots of empty ground or the edge of the world?
- **Story.** Does the clip go from wide context to a close detail? Does the last shot land?
- **Finish.** Any flicker, popping trees, noise or dropped frames?

Steps for presenters

1. Have your clip open and ready to play before your turn.
2. Say your one line of intent before you play it.
3. Write down every note. Don't argue or explain during feedback.
4. Pick the single note that will make the biggest difference and fix that first.

Steps for viewers

1. Watch the whole clip before you judge it.
2. Use the rubric words so your note is clear.
3. Give one note, not five.

SHIP IT

Write two lines under your post in the session thread: the note you are acting on, and how you will fix it.

☐ Shipped. Link or file: _____

Check yourself

1. Can you name the weakest rubric line in your own clip?

2. Did you give at least one other builder a specific, kind note?

3. Do you know the one change you'll make before showcase?

LESSON 2.4 · PROJECT · 15 MIN

Ship it: showcase night

Post your finished fly-through to the Metameta Nights gallery channel on the Metameta Club Discord. Week 8 is also showcase night: the top pieces from the run go on the showcase stage, followed by a Fellowship info session.

Key points

What "shipped" means

Shipped means someone who wasn't in the room can watch your work and understand it without you. That needs three things: the clip, a short caption, and credits.

Credits format

After the run

Eight weeks, eight pieces. Put the best three on one page with a line each about what you learned.

Steps checklist

- [ ] Apply the one critique note you chose. Re-render only the shots that changed.
- [ ] Export a final MP4: 1920×1080, H.264, 30 fps, under two minutes.
- [ ] Watch it once on your phone. Check text is readable and nothing flickers.
- [ ] Write a caption of three lines:
  - [ ] What it is: "A 45-second fly-through of a generic masterplan."
  - [ ] How you made it: tools and techniques, for example "Blender, Follow Path camera rig, Eevee."
  - [ ] What you'd do next.
- [ ] Add credits: any asset packs, textures, music or AI tools you used, with their licences.
- [ ] Post the clip and caption in the gallery channel.
- [ ] Stay for the showcase and the Fellowship info session if you can. Missed it? The recording is posted after.

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

SHIP IT

Your fly-through, caption and credits, posted in the gallery channel.

- [ ] Shipped. Link or file: _____

Check yourself

1. Does your caption say what, how and what's next?

2. Is every asset and track you didn't make credited with its licence?

3. Can someone watch it on a phone with the sound off and still follow it?

PRACTICE QUIZ

Check your module

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

1. Why does the camera rig aim at an empty with a Track To constraint?

(A) It makes the render faster

(B) You can reframe the shot by moving one object instead of re-rotating the camera every frame

(C) Blender cameras can't be rotated by hand

(D) It is required for the Follow Path constraint to work

2. Why render a PNG sequence instead of straight to MP4?

(A) PNG files are smaller

(B) MP4 can't hold 30 fps

(C) If the render crashes you keep every finished frame and only re-render the rest

3. A shot pushes in, orbits and rises at the same time. What's the main critique note?

(A) Use one clear camera move per shot

(B) Raise the resolution

(C) Add more trees

(D) Switch to Cycles

4. What does a shipped fly-through need besides the clip?

(A) A price

(B) A short caption and credits for assets, music and AI tools

(C) The .blend file

(D) A headset version

ANSWER KEY

Answers and why

1 · B You can reframe the shot by moving one object instead of re-rotating the camera every frame

The camera always looks at the empty, so moving the empty reframes the whole shot. Follow Path works without it.

2 · C If the render crashes you keep every finished frame and only re-render the rest

A crash mid-way through a video file can lose the whole file. Frames on disk survive, and ffmpeg joins them after.

3 · A Use one clear camera move per shot

Combined moves are hard to read. One move per shot keeps the viewer oriented.

4 · B A short caption and credits for assets, music and AI tools

Someone outside the room should understand it, and everyone whose work you used gets credit.

NOTES

Build log and notes

SESSION	WHAT I MADE OR LEARNED	NEXT STEP