

Build a physics app

Go from a prompt to a working investigation

PROJECT 03 / BUILD

Your first win

A working Swing Lab with controls you can test.

Google AI Studio Build; Antigravity or Work as options

15–18 min / choose one result

Your recipe

01 Open Build mode

Open AI Studio Build in an eligible existing account.

02 Paste the build prompt

Paste the build prompt. Keep runtime physics deterministic.

03 Use the preview

Try length, gravity, mass, Pause, Reset and keyboard input.

04 Check three values

Check 2.006 s at 1 m and 4.012 s at 4 m on Earth.

05 Make one real revision

Use the follow-up prompt. Retest any affected controls.

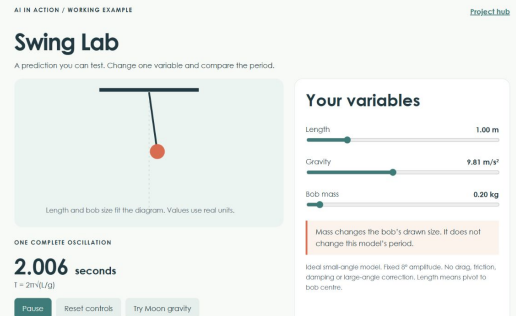
Fallback: open the local example in the project hub.

Your check

The animation and numeric period agree. Units remain visible. Four times the length gives twice the period. Mass changes size only.

Try this twist

Swap the context: gear ratios, a resistor circuit or a projectile. Supply the governing equations and acceptance checks first.



Paste and build

Build Swing Lab as a browser app using $T=2\pi\sqrt{L/g}$. Add sliders for length 0.25–4 m, gravity 1.62–20 m/s² and mass 0.1–2 kg. Use metres and seconds. Animate an 8-degree swing with the calculated period. Mass changes bob size only. Show units, Pause, Reset, a prediction and a model limitation. Include keyboard controls and reduced motion. Use deterministic code with no runtime AI calls. Show the preview.

Full prompt + follow-up: project hub or prompts folder.