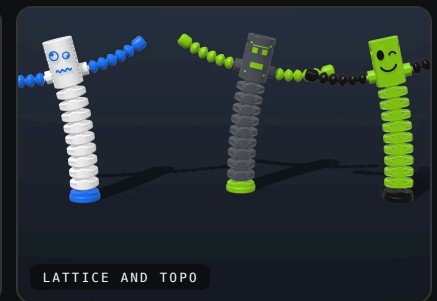
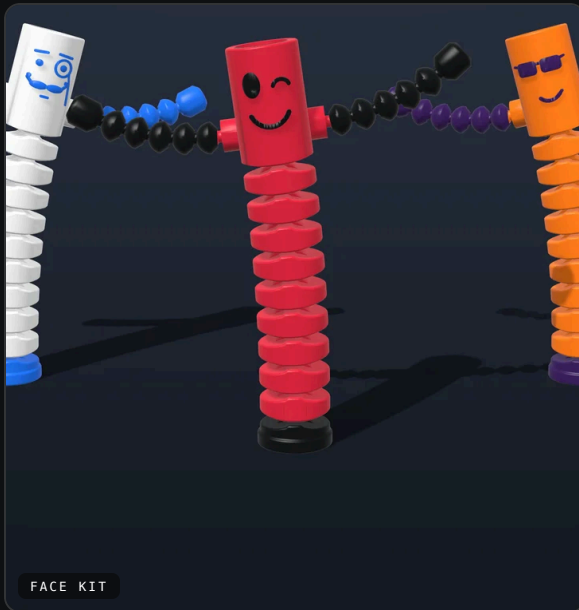


— PRINT-IN-PLACE // PARAMETRIC CAD // FREE DOWNLOAD

Ten joints. Two colors. Zero assembly.

Wiggle Toys are print-in-place desk buddies for the shop, the office or the kids. Every joint prints already assembled, the arms ball-joint, the base takes a magnet, and the face is its own part so it prints in any color. One parametric body, 85 toys, 18 print profiles, all free.



// BY THE NUMBERS

Toys	85 across 10 collections
Joints	10 body joints, about 22 degrees each
Arms	Ball joints, flat-foot links
Colors	2 filaments, face is its own part
Supports	None. Prints flat, no brim
Size	170mm tall, 20mm magnet base

// THE ENGINEERING

Swept-socket joints

A pin in double shear inside a socket swept around it, so the post never binds. Clearances set for a 0.4 mm nozzle and checked on the mesh.

Flat-foot arms

The first arm links had 62 mm² on the bed. A flat foot on every link took that to 521 mm² with no loss of swing.

Face as its own body

Two colors with no filament swaps on a dual-nozzle printer. Single nozzle gets one filament change.

Want a toy, a giveaway or a product family with your logo?

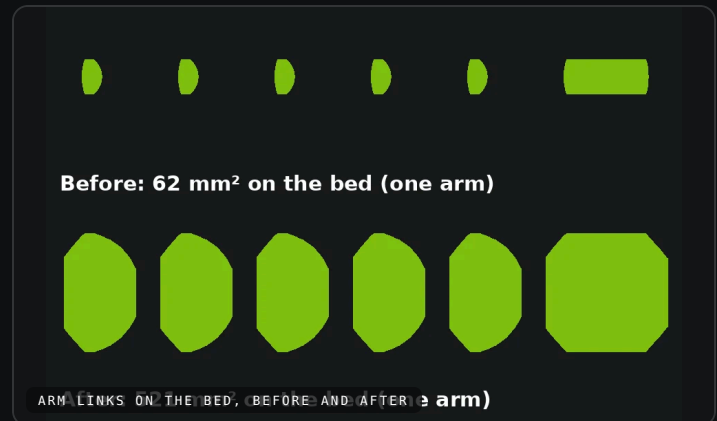
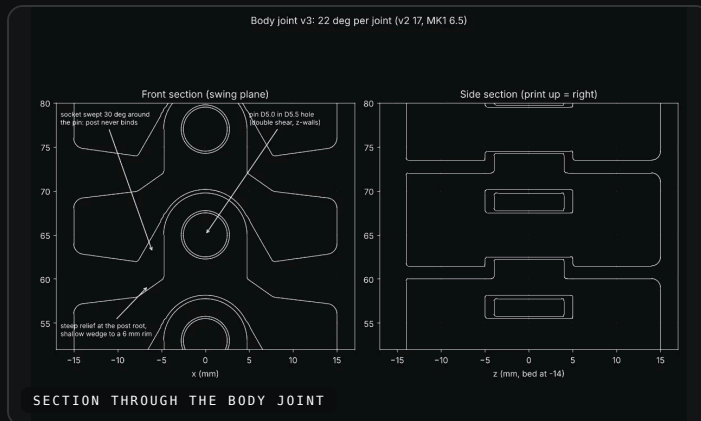
kindofabigdill.com/quote



READ THE CASE STUDY

PROCESS

How 85 toys came out of one model.



① Parametric body

One Inventor body with named parameters for segment count, joint clearances, rim and post. Variants are inputs, not remodels.

② Rule-driven builds

An iLogic builder reads a recipe and writes the part, STEP and STL for each toy. Three sessions built 12 toys in about six minutes.

③ Mesh checks

Every STL checked for closed shells, non-manifold edges, floating parts and volume against the CAD.

④ Textures as math

Groove and relief skins are height fields cut 0.6 mm into the segments, so a texture never reaches a joint.

⑤ Rendered gallery

A WebGL renderer in headless Chromium turned out the gallery in nine colorways. Real photos follow the test prints.

⑥ Packaged for MakerWorld

18 sliced profiles, one toy per plate, a print and play guide, and a license that keeps the files free but not for resale.

// WHAT THIS MEANS FOR YOUR PRODUCT

Print-in-place and moving parts

Hinges, snaps, ball joints and captive pins come down to a few tenths of a millimeter and the right orientation. I design them for the printer you have and check the mesh before it ships.

Branded giveaways and product families

Your logo, your colors, your mascot. A rule-driven CAD model turns a family of variants into a list of inputs, with print files and renders from the same pipeline.

Tell me what it needs to do and who it is for.

Reply within 2 business days



START A PROJECT