Desk Monster: the grown-up's guide

A one-hour activity for ages 8 to 12. Kids build a monster in Tinkercad (free, runs in a browser, nothing to install) by sliding ready-made parts onto a body, then naming it. The parts tray is already built and colored. Your job: get a copy for your kid and help with the tricky bits. When it's done, **we print it for you** in real plastic and in its colors, or you print it yourself.

1. Get your copy of the tray (2 minutes)

1. Scan the code or open the link on the right. You'll see the **Desk Monster parts tray** by PrinceFriends.
2. Click `Sign up to copy` (or `Log In` if you have a Tinkercad account). Kids under 13 use a parent's account.
3. Click `Copy and Tinker`. Your own copy opens in the editor. Hand over the kid card.

2. Helping out

- Read the rules together: **every part touches the body, nothing floats, 4 colors, delete the leftovers.**
- The one thing most kids need help with: spinning the view. Hold the **right** mouse button and move, or click the cube in the top left corner.
- A "Cruise tool" box may pop up the first time. Close it.
- Parts already float at the right height. If a kid drags the little black cone on top of a part, `Ctrl` + `Z` (`Cmd` + `Z` on a Mac) puts it back.
- A part that only kisses the surface prints as a separate piece. Push it in until it clearly sinks into the body.
- Finished? Delete leftover parts, spin to check for floaters, type the name. Then turn the page.



The tray as a kid opens it. Front of the monster faces the bottom. Four colors already set: plum, teal, cream, charcoal.

The parts tray
Scan it with a phone camera to open the tray. It's a private share link: not listed in Tinkercad's gallery.

Done? We'll print it for you.

Your kid's monster, printed in its 4 colors, about two inches tall, ready for a desk.

1. In Tinkercad, open the monster and click `Export` → **.OBJ**. A .zip downloads.
2. Email the .zip with your kid's first name or the monster's name.
3. We check it, quote it, print it and ship it (or hand it off in Charlotte).

hello@princefriends.com

Printing it yourself

No 3D printer? Skip this page. Export the .zip and email it to **hello@princefriends.com**: we print it for you.

Have a printer? Every part prints flat with no supports when it sits where the kid card says. Two things break a print: a part that floats, and a monster with more than 4 colors.

3. Check before you export

- **Leftovers deleted.** Anything still on the tray gets printed too.
- **Everything touches.** Spin it. No part hangs in the air or sits off the base.
- **4 colors or fewer, exactly.** Parts that match must be the same color, not a close one. The tray's colors are plum **#773B96**, teal **#31A49B**, cream **#F4F1EC** and charcoal **#2A2A2C**.
- **Name is a first name or a monster name.** Nothing else on the base.

4. Export from Tinkercad

1. Open the kid's design. `Export` → **.OBJ**.
2. It downloads a **.zip**. Unzip it: an **.obj** and an **.mtl** file. The .mtl holds the colors; keep the two together.

5. Slice it (Bambu Studio)

1. `File` → `Import` → pick the **.obj**. An **Obj file Import color** window opens.
2. Check the recommended number of colors. **4 or fewer:** click `Color match`, map each color to the right filament, `OK`. **More than 4:** cancel and fix the colors in Tinkercad. Don't let Bambu squeeze them down; it merges colors that look alike and the monster comes out scrambled.
3. Slice and check the preview. A floating part shows up as an island: slide it into the body in Tinkercad and export again.

Print settings

Material	**PLA** (matte or basic), up to 4 colors
Plate	Textured PEI at **55 °C**, no brim
Layers	**0.20 mm**, 2 walls, 15% infill, supports **off**
Time	about 1 hour in one color; 4 colors roughly doubles it
Off the plate	let it cool all the way, then lift straight up

Want it done for you?

One monster or a dozen: email the exported .zip files to **hello@princefriends.com** and we print, pack and ship them. Quoted per monster, no surprises.

A group: Prince Friends runs Desk Monster workshops for birthday parties, scouts, libraries and school clubs. We set everything up and print every monster. Quoted per group.

Test your own setup first with **PF_DESK_MONSTER_SAMPLE_4COLOR.3mf** from the kit folder.

House rules for kids' designs

A monster made from the kit parts is the kid's own design and prints as-is. If a kid adds a character, a logo or a name that isn't theirs, it comes off before printing: Prince Friends doesn't print other people's characters or logos. Photos of finished monsters are shared only with a parent's written OK, and never with a kid's face in them.