MONSTIA MINIMALIS – Wall Plant Propagation Station (Magnetic Test Tube Holder)

A wall-mounted propagation station designed to display plant cuttings while they root in water.

Glass tubes are held in place with **magnetic holders (16× neodymium magnets, ∅10 × 3 mm)**, allowing them to be easily removed for refilling water or checking root growth.

Perfect for propagating plants like Monstera, Pothos, Philodendron, Scindapsus, and other vine cuttings.

Model size: 230 × 80 mm
Minimum build plate size: 187 × 187 mm

Hardware

Glass tubes
Diameter: 20 mm
Length: 100–150 mm
Tubes shown in photos: 150 mm

BUY TUBES:
USA link: https://amzn.to/4mPdVaa
EU link: https://amzn.to/4mKyJPJ

Magnets
16 × Neodymium magnets
Size: 10 × 3 mm

Mounting

Designed for easy wall mounting using either adhesive or screws:

Option 1 – Adhesive (no-drill):

• **Command Strips (Medium)** — 3 pairs
Size: 70 × 19 mm

link EU: https://amzn.to/42l7T8F

link USA: https://amzn.to/4vDsouT

Before applying adhesive, clean the printed surface with a degreasing cleaner.

• **or mounting tape** — 3 pieces
Size: up to 20 × 70 mm

link EU: https://amzn.to/4dWdJ7P ,

link USA: https://amzn.to/4tS09qB

Option 2 – Screws (permanent):

• 2 × countersunk screws (3.5–5 mm diameter)

link EU: https://amzn.to/4dMhD2U

link USA: https://amzn.to/3Q4q146

Material

Bambu Lab Matte PLA
Colors: **Bone White + Latte Brown**

Print Settings

Recommended settings:

- Layer height: 0.2 mm
- Infill: 10–15% Gyroid

For the tube holders:

- Wall loops: 4 perimeters

The thicker walls are especially important for the tube clips, ensuring enough strength and grip to securely hold the glass tubes.

Magnet Installation (Important)

The magnets are **embedded inside the printed model**, so you must **pause the print during printing** to insert them.

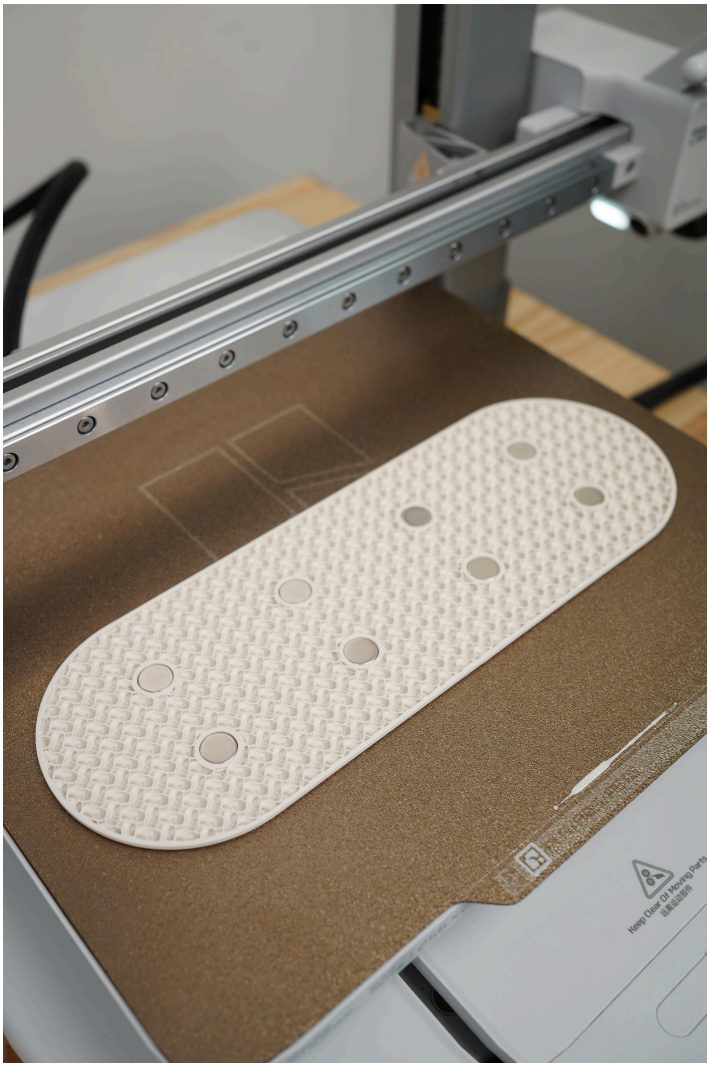
Correct magnet polarity is important so the tube clips attach properly.

Magnet Polarity Trick

A simple method to ensure correct polarity:

1. Prepare a **stack of magnets**.
2. Use a **permanent marker** to mark one side of the stack.
3. Insert magnets into the **base using the marked side facing up**.
4. When installing magnets into the **tube clips**, flip the magnet stack and use the **opposite side of the magnet stack**.

This guarantees the magnets **attract each other instead of repelling**.





Orientation Note

When printing the base:

The side touching the **print bed will become the front side of the wall mount**.

The **tube clips attach magnetically to this side.**

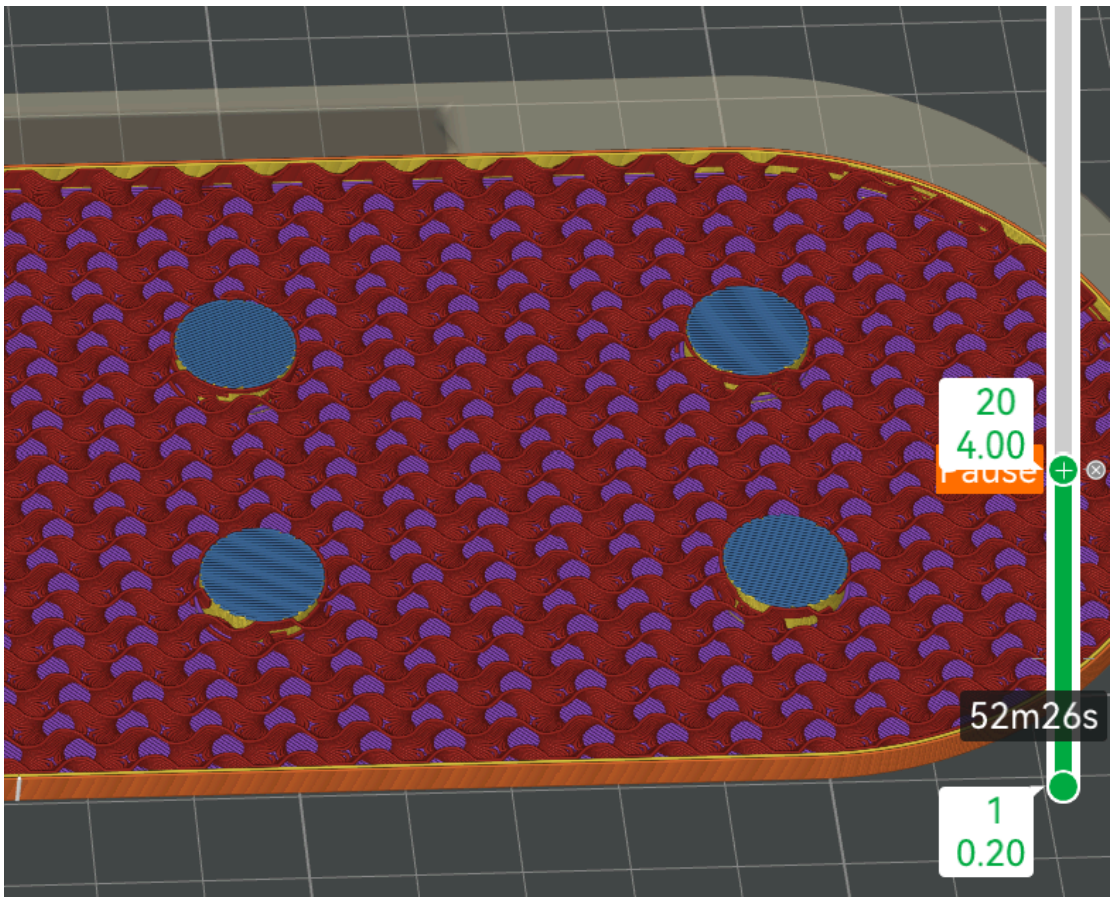
Adding a Pause in the Slicer

Because the magnets are embedded inside the design, you must pause the print before the magnet cavities are closed.

Typical workflow:

1. Slice the model.
2. Open the **layer preview**.
3. Use the **layer slider (usually on the right side)** to scroll through the layers.

4. Find the **first layer that covers the magnet holes**.
5. Right-click the **"+" icon on the slider** and select **Add Pause**.



During printing:

1. The printer will pause automatically.
2. Insert the **10 × 3 mm magnets** into the slots.
3. Verify the **polarity matches your marked orientation**.
4. Resume the print.

The printer will continue printing and **seal the magnets inside the model**, making them completely invisible.

After Printing

Once the print is finished, **allow the model to cool down completely before testing the magnets**.

Magnets can temporarily **lose some magnetic strength when they become warm during printing**.

Waiting until the model has cooled ensures the **correct magnetic holding force** when attaching the tube clips.

Questions or Feedback?

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Join the Community:

https://discord.gg/SagnAaCgHF