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

A wall-mounted propagation station inspired by the iconic **Monstera leaf**, designed to display plant cuttings while they root in water.

Glass tubes are secured with **magnetic clips**, allowing them to be easily removed for refilling water or checking root growth.

The design turns plant propagation into a decorative **vertical wall feature** while keeping your cuttings organized and easy to maintain.

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

The model fits on a **250 × 250 mm print bed**.

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 Options

Two versions of the model are included.

Standard Version

Designed for mounting with adhesive such as:

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

or

- **Mounting tape** — 3 pieces
  Size: up to **20 × 70 mm**

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

Version with Rope Holes

This version simply includes **additional holes for rope**.

The holes allow you to **add rope later if desired**, but the model can still be mounted using adhesive in the same way as the standard version.

Compatible rope diameter:

- **Up to 7 mm**

Material I used: Bambulab Matte PLA Dark Green + Latte Brown

Print Settings

Recommended settings:

Layer height
0.2 mm

Infill
10–15% Gyroid

Wall count
3–4 perimeters

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

Supports
Not required

Material

- **PLA** works well for indoor use
- **PETG** is recommended for humid environments

Magnet Installation (Important)

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

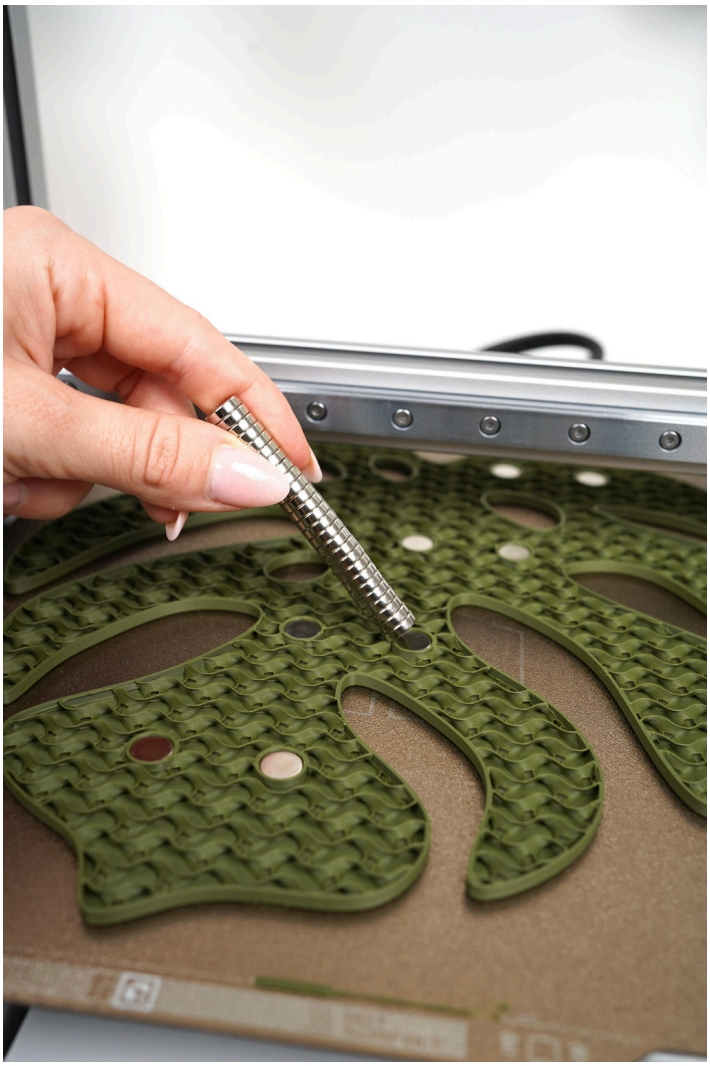
Correct magnet polarity is important so the tube clips attach properly.

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 **leaf base using the marked side facing up**.
4. When installing magnets into the **tube clips**, flip the magnet stack and use the **opposite side**.

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





Orientation Note

When printing the leaf base:

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

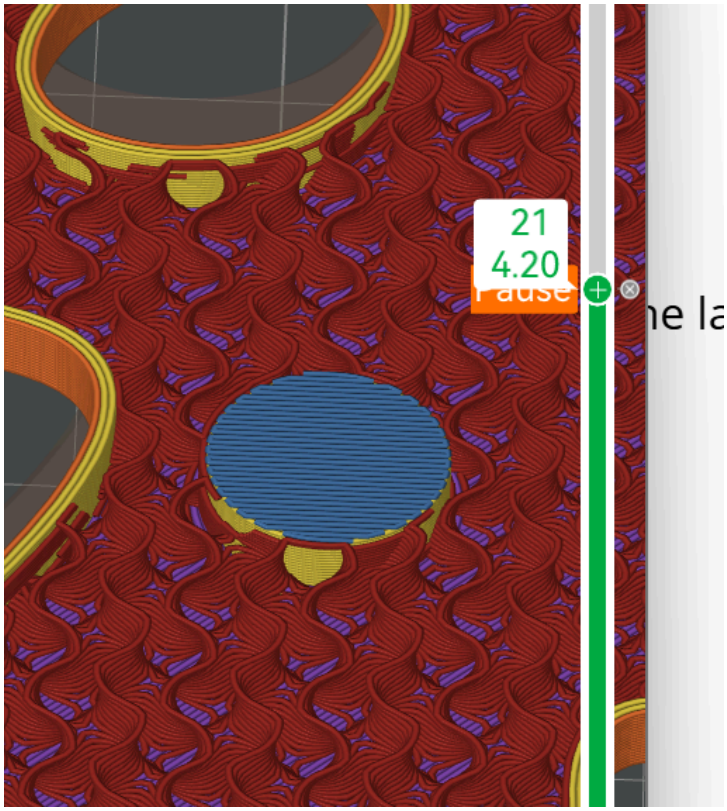
The **tube clips attach magnetically to this side.**

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.

Installation Guide (Stencil)

The model includes an **installation stencil** that helps position the leaf correctly on the wall.

Because the leaf shape is angled, the stencil ensures that the **glass tubes will be vertical after installation**.



💬 Questions or Feedback?

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🧠 Join the Community:

https://discord.gg/SagnAaCgHF