JEWTRA – Jewelry Travel Compact Box

UPDATE: Improved joints for smoother movement, optional magnet slots (up to 3 magnets), and two joint fit versions included: regular and a looser option for printers with lower precision or tighter tolerances.

JEWTRA is a compact jewelry travel box designed with **print-in-place hinges** and **hidden magnets** for a clean, elegant closure. The box prints unfolded to ensure reliable hinge movement and requires minimal post-processing.

Ideal for storing rings, earrings, necklaces, and small accessories—perfect for travel or everyday use.

📐 Dimensions

- **Final size:** 107 × 104 × 30 mm
- **Required build plate space:** 214 × 104 mm
  (The box prints unfolded due to print-in-place hinges)

🧲 Required Hardware

- **4× magnets**
  - Diameter: **5 mm**
  - Thickness: **3 mm**
- Magnet slots are **integrated into the design**

🖨️ Print Instructions

General Print Settings (Entire Model)

- **Layer height:** 0.2 mm
- **Infill:** 15%
- **Infill pattern:** Gyroid
- **Supports:** ❌ None

Ring Holder Insert

The ring holder uses infill lines to create adjustable ring grooves.

Settings (Ring Holder Insert ONLY)

- **Top shell layers:** 0
- **Bottom shell layers:** 0
- **Infill:** 20–25%
- **Infill pattern: Monotonic**

- **Infill pattern angle: 0°**

⚠️ **Bambu Studio note:**
In newer BambuLab slicers, **Advanced Settings must be enabled** to access the infill angle option.

➡️ Go to **Objects**, select the **ring holder insert**, and **apply these settings only to the insert**, not to the rest of the box.

👉 The infill lines themselves form the ring slots.
!**Adjust the infill percentage to better fit thicker or thinner rings.!**

🧲 Magnet Insertion (Pause-at-Layer Method)

To embed the magnets during printing:

1. Slice the box in your slicer
2. Switch to **Preview / Sliced File view**
3. Use the **layer slider on the right** to find the **first layer that closes the magnet hole**
4. Right-click the **"+" icon** and insert a **Pause**
5. Start the print — the printer will pause automatically
6. Add a **small drop of superglue** into the magnet hole
7. Insert the magnet and **push it fully down**
   - Magnet must be **flush or slightly below the surface**
   - Prevents print heat from directly affecting the magnet
8. Resume the print

⚠️ VERY IMPORTANT – Magnet Orientation

Incorrect polarity will cause the box **not to stay closed**.

Recommended method:

1. **Stack all magnets together** into one single column.
   Do not flip or reorder the stack.
2. Hold the stack and **slide off one magnet at a time**.
   Place each magnet into its slot in the **top part** of the box, always removing magnets from the **same end** of the stack.
3. Once all magnets in the top part are placed, **flip the remaining magnet stack upside down**.
4. Again, **slide off one magnet at a time** from the flipped stack and insert them into the **bottom part** of the box.



Another method:

- Keep all magnets stacked in one pillar
- Mark the connecting faces of each magnet pair with a **dot**
- For each pair:
  - Place the first magnet into one half of the box with the **marked dot facing up**
  - Place the second magnet into the opposite half with the **marked dot also facing up**
- Repeat for the second magnet pair

This ensures correct polarity and proper magnetic closure


Mark the sides that will be facing up with a dot.
HEMA