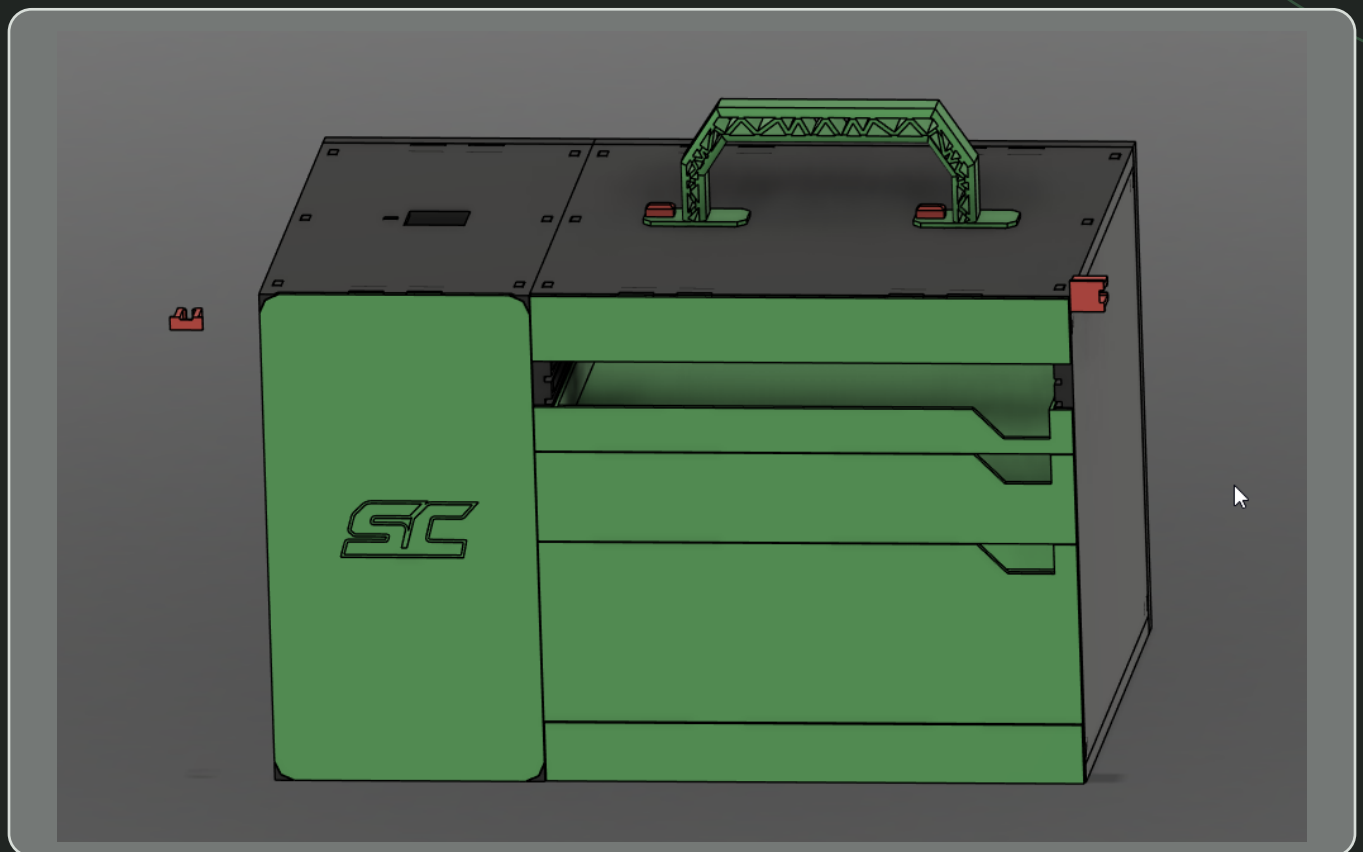


FOR SLOTCRATE V2 IN 1:32 AND 1:24 SCALE

Printing and Assembly Manual

Modular transport and storage system for slot cars and tools



00

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For SlotCrate V2 in 1:32 and 1:24 scale. Modular transport and storage system for slot cars and tools.

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SLOTCRATE V2

SM and TM form a flexible system for workshop use and transport. This manual covers print preparation, body assembly, the handle and the final inspection.

01

System overview

SlotCrate V2 combines interchangeable modules into a flexible transport and storage system. This overview explains the purpose of the core modules and the colour-coded assembly elements.

- SM: narrow slotcar module for car trays, with the option to install a magnetic cover.
- TM: wide tools module with freely configurable drawers.
- Modules can be joined side by side and stacked vertically.
- The handle can be positioned across any two segment widths.

NOTE

Colour key: Green identifies visible functional parts such as covers, drawers and the handle. Red identifies locking pins and connectors.

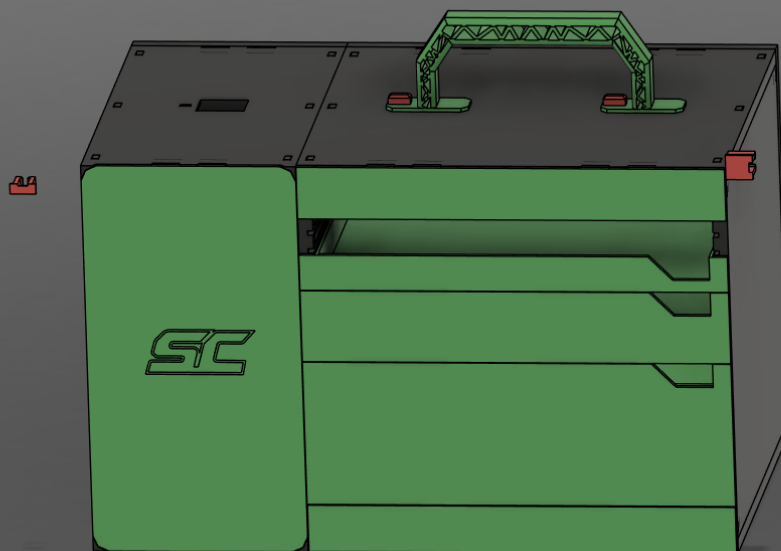


Fig. 1: Example configuration with SM, TM, covers, drawers and handle.

02

Before printing: determine the tolerance

The large body parts require significant material and print time. First determine which press-fit tolerance your printer can reproduce reliably.

PRINT NOTE 1:24

Printing SlotCrate V2 for 1:24 scale requires a build area of up to 250 x 250 mm. For the best possible quality, calibrate the printer carefully and ensure the strongest possible bed adhesion. Warping may still occur across these large surfaces. Slightly warped body parts can usually be realigned by gentle, controlled counter-bending. The structure of the parts allows this correction, and the final assembly also helps bring the components into straight alignment.

STEP 1

01 Print the Tolerance Test Base and the 0.1, 0.2 and 0.3 inserts using the same settings intended for the SlotCrate.

STEP 2

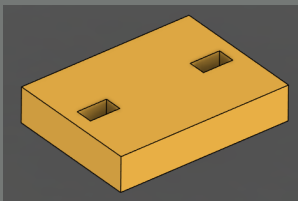
02 Orient each labelled insert with the number facing down. Use the intended support beneath the plug features.

STEP 3

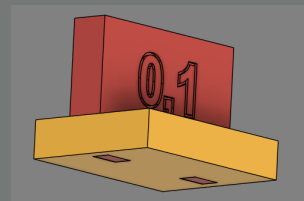
03 Press each insert into the base. It should engage with light pressure, sit firmly and still be removable without damage.

STEP 4

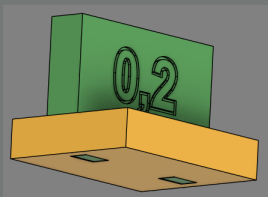
04 Select the best-fitting tolerance for all further SlotCrate parts.



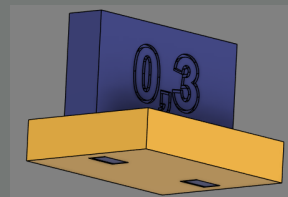
Tolerance Test Base



0.1 insert



0.2 insert



0.3 insert

NOTE

Too tight: test the next higher tolerance. Too loose: choose the next lower value. Never force the parts together.

03

Basic assembly, connecting and stacking

Start by joining the lid, base and side walls to form the module body. The order is especially important when several modules will become one unit.

01

STEP 1

Secure the lid and base with two T-pins at their outer corners. This locks four corner joints per module.

02

STEP 2

If modules will be connected, do not install the rear panels yet.

03

STEP 3

Fully insert the required side-wall connectors at the front and rear.

04

STEP 4

Install the rear panels only after all module bodies have been connected, then check their fit.

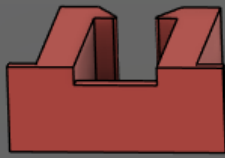


Fig. 2: Side-wall connector.

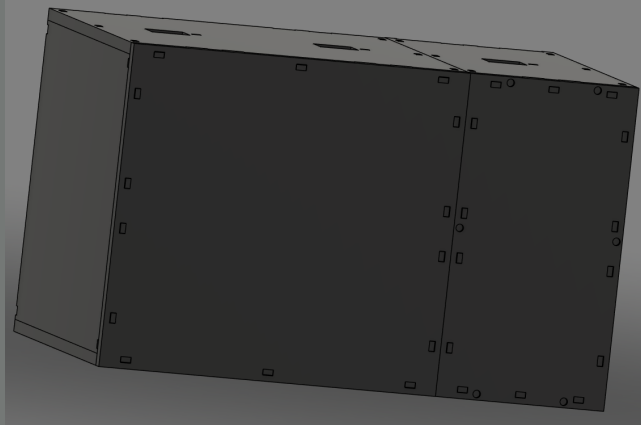


Fig. 3: Install the rear panels after connecting the modules.

NOTE

The rear panels cover the slots for the rear connectors. Once a rear panel is installed, these connectors can no longer be inserted. Connect every module at the front and rear first, then install the rear panels.

03

Connect modules at the front and rear

SM and TM bodies connect through the designated slots at the front and rear. Wider connectors are used for modules stacked on top of one another.

01

STEP 1

Align the module bodies flush, without their rear panels installed.

02

STEP 2

Press the front connectors fully into their slots.

03

STEP 3

Create the matching connection at the rear.

04

STEP 4

Check alignment, then install every rear panel.

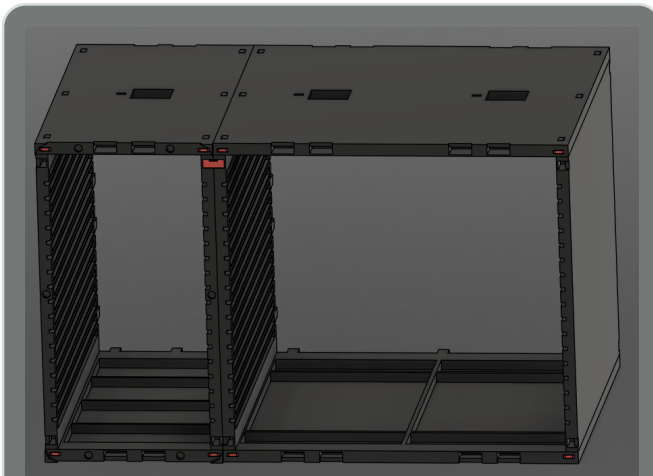


Fig. 8: Positions of the front connectors.

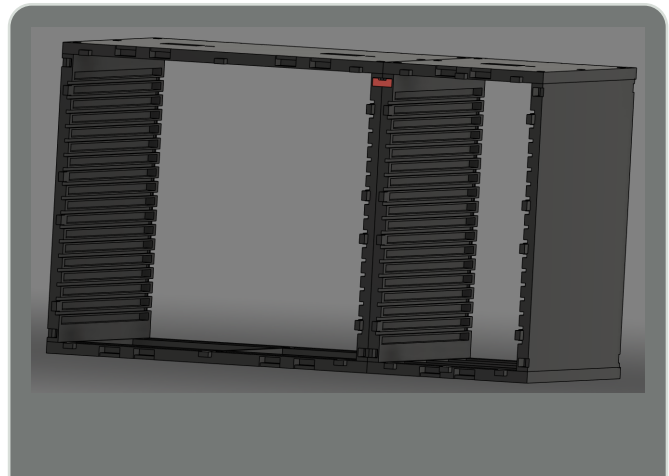


Fig. 9: Position of the rear connector.

NOTE

The connectors can normally be removed without damage. Because print tolerances and repeated assembly vary, keeping a few spare connectors is still recommended.

03

Stackable configurations

One SM is half the width of one TM. Two SM segments, one TM, or mixed combinations can therefore be arranged into stable units.

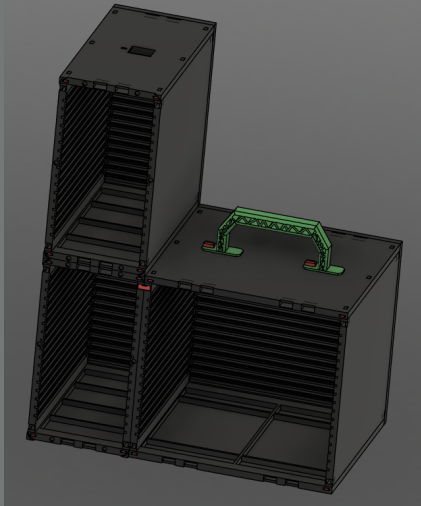


Fig. 10: Example of a freely arranged stack.

- Modules may be placed side by side and stacked vertically.
- Use the designated wider connectors for stacked modules.
- Secure every connected body at both the front and rear.
- The handle may span any two segment widths.

NOTE

Before lifting, check the complete unit for twisting. Replace any loose or visibly damaged connector.

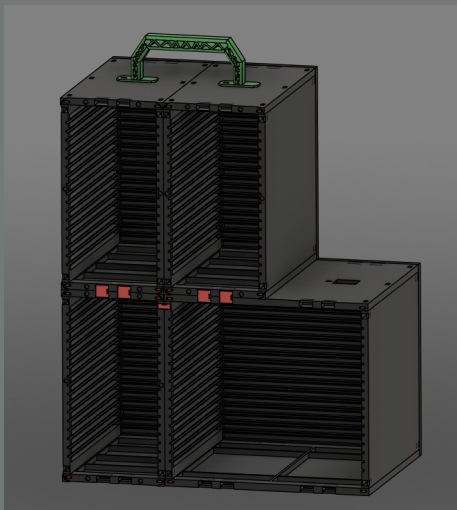


Fig. 11: Stacked and connected modules.

04

SM - assemble the slotcar module

The SM holds the slotcar trays. Rails along the side walls allow the trays to be positioned at different heights.



Fig. 4: Closed SM with SC cover.

- Secure the lid and base with two T-pins each at the outer corners.
- Slide the slotcar trays horizontally into the chosen guide rails.
- Six positions for 5 x 2 mm round magnets are provided at the front and another six at the rear panel.
- The green SC cover can therefore be held at either the front or the rear.
- Before transport, verify that trays, magnets and cover are secure.

NOTE

Install magnets flush and with the correct polarity. Test the cover's holding direction before final installation.

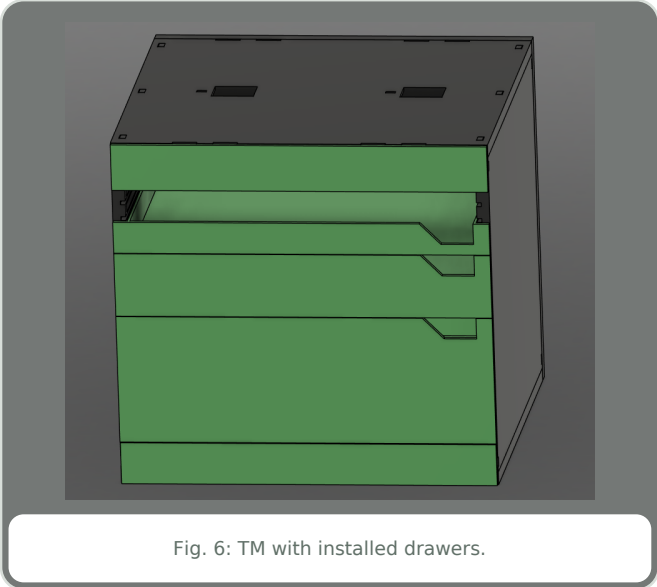


Fig. 5: Open SM with an installed slotcar tray.

05

TM - configure the tools module

The TM provides a 10 mm rail pitch for different drawer heights. This allows the interior to suit tools, spares and maintenance supplies.



- Secure the lid and base with four T-pins in total.
- Click the bottom cover into the lowest section.
- All guide slots above it are intended for drawers.
- The top drawer is always 20 mm high and has a taller front for a clean overall appearance.
- A usable height of 160 mm remains below the top drawer.

Layout	Example division of the 160 mm
A	80 mm + 80 mm
B	80 mm + 40 mm + 40 mm
C	80 mm + 40 mm + 20 mm + 20 mm
D	40 mm + 40 mm + 40 mm + 40 mm

NOTE

These examples are not exhaustive. Every layout must follow the 10 mm rail pitch and the available total height.

06

Insert and secure the handle

The handle locks into the designated lid openings without additional screws.

01

STEP 1

Insert both handle ends into the matching lid openings at the same time.

02

STEP 2

Slide the handle fully to the left until its feet engage beneath the lids.

03

STEP 3

For transport, secure both sides of the handle with the small T-pins.

04

STEP 4

Pull the handle upwards gently and verify that nothing can move.

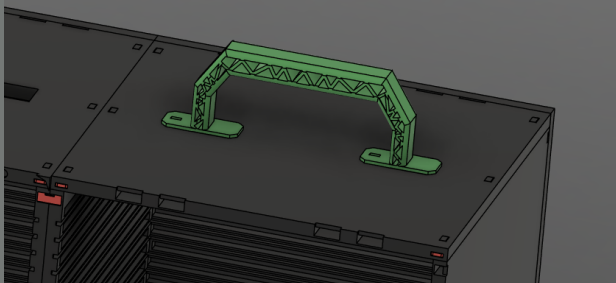


Fig. 12: Insert the handle and slide it to the left.

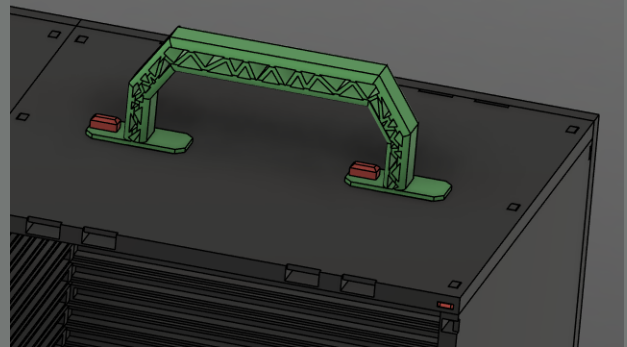


Fig. 13: Secure the handle with two T-pins.

NOTE

Never carry the SlotCrate by an unsecured handle. Both locking pins must be fitted before every lift.

Coming later: Unused handle openings can be closed with covers. A maintenance module based on SlotCrate V1 is in development.

07

Final inspection and safe use

Complete a brief visual and functional inspection before first loading and before every transport.

- ✓ All corner T-pins are fully seated in the lid and base.
- ✓ Front and rear connectors sit flush in their slots.
- ✓ All rear panels were installed after connecting the bodies.
- ✓ Covers, magnets, slotcar trays and drawers are secure.
- ✓ The handle is locked to the left and secured by two T-pins.
- ✓ No load-bearing area shows cracks, warping or separated layers.

Problem	Check / remedy
Press-fit too tight	Use a higher tolerance; remove sharp edges and support residue.
Press-fit too loose	Use a lower tolerance and verify the print settings.
Drawer binds	Check the guides for strings, protrusions or warping, then carefully smooth and adjust them with sandpaper or a file if required.
Cover holds weakly	Check the seating and polarity of every magnet.
Handle can slide	Check the locking direction and both T-pins.

NOTE

No universal load rating is specified for 3D-printed parts. Load, material, print quality and the condition of all parts remain the user's responsibility.

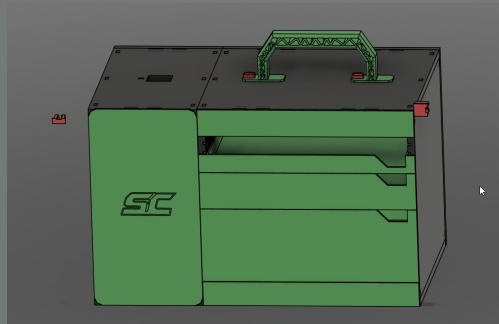


Fig. 1: Example configuration with SM, TM, covers, drawers and handle.

Your SlotCrate V2 is ready. Enjoy safe transport and a well-organised slotcar workshop!

08

Planned near-term additions

SlotCrate V2 is being continuously expanded. The next planned additions include:

01

PLANNED 1

Adding a maintenance module.

02

PLANNED 2

Adding different slotcar trays.

03

PLANNED 3

Adding drawers for the SM.

04

PLANNED 4

Adding a narrow 1/4-segment MM (Maintenance Module) for bottles, adhesives and cans.

05

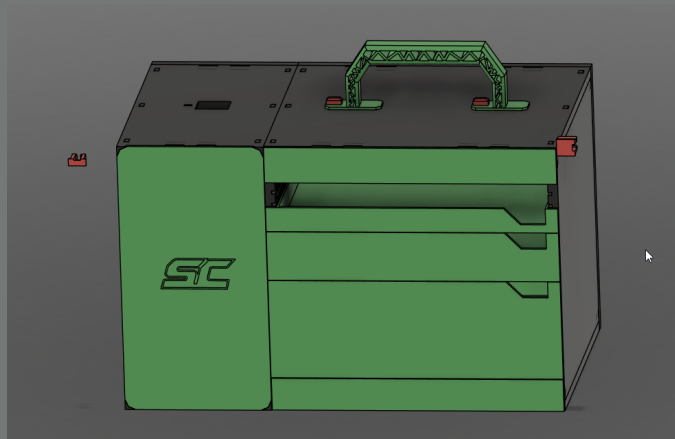
PLANNED 5

Adding drawer inserts for improved organisation.

06

PLANNED 6

And much more.



SlotCrate V2 will continue to grow with new modules, trays and organisation inserts.

NOTE

The order and final design of these additions may change during development.

Requests or suggestions?

If you have requests or suggestions, please get in touch in the Freeslotter forum thread, by private message or through the contact form at slotcrate.i3ull3t.de.

slotcrate.i3ull3t.de