
# CREALITY K1 | K1C | K1SE - LID RISER V3 [FRAME EXTENSION KIT]

**LEOTE [approach]**

VIEW IN BROWSER

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## Summary

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3D Printers > Creality Parts & Upgrades

Tags: led handle hinge creality abs pla riser k1 k1c

**LID RISER V3 [FRAME EXTENSION KIT] | Vents | Filament Sensor | LED Strip | Hinges | Embedded LID**

***If you have any issues with printing or assembly, feel free to message me, and I'll do my best to assist you ☺.**

*Because of the seam inside the walls, the internal space is reduced. To clean it up, use scissors or a similar tool. Simply insert the scissors into the wall and go back and forth a few times until it feels cleaner and there’s no more resistance. This will ensure the vents will slide.

*If it's difficult to slide the pieces together, use a metal file to clean the rails, especially on the wall pieces. This minor adjustment can make a big

difference. The fit is meant to be snug, so the pieces aren't loose. I had to do this with some of my pieces. Some fit perfectly, while others were tight, likely due to the printing process. Just file the rails a few times, and they should fit perfectly.

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**/////LINKS FOR THE HARDWARE USED IN ALL MY PROJECTS** * affiliate links

**INSERTS M3 x 4mm (L) x 5mm (D):** https://amzn.to/3EovAVw

**HEX SOCKET CAP M3 6mm-30mm (STAINLESS):** https://amzn.to/4imGAQW

**HEX SOCKET CAP M3 6-20mm (BLACK):** https://amzn.to/3R7wjx4

**FLAT HEAD SOCKET CAP M3 4mm-12mm (STAINLESS):** https://amzn.to/3G3Z1wr

**FLAT HEAD SOCKET CAP M3 8mm-25mm (BLACK):** https://amzn.to/43JeThP

**LED STRIP - COB LED Strip Lights Daylight 24V:** https://amzn.to/44M0iTd

**LED CONNECTOR - JST-XH 2.54mm 1S 2 Pin Balance Plug:** https://amzn.to/3YrGG2C

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**UPDATE 0.7 16/05/2025 - NEW BACK WALL with FILAMENT SENSOR INVERTED**

This version allows you to install the filament sensor upside down.
The sensor is not directional, so it works the same way when inverted.
With this configuration, the cable connector is positioned at the bottom, which means you can use a much shorter cable.


**/////PARTS LIST FOR PRINTING THE RISER WITH THE CFS MOUNT V1**

**EXCLUDED PARTS:**

- LID
- BACK FRAME - **[a]_x1_K1C_V3_FRAME_BACK.stl**
- FRONT FRAME - **[a]_x1_K1C_V3_FRAME_FRONT.stl**
- BACK WALL- **[b]_x1_K1C_V3_WALL_BACK.stl**
- FRONT WALL **- [b]_x1_K1C_V3_WALL_FRONT.stl**
- 1x LEFT WALL CORNER - **[b]_x4_K1C_V3_WALL_CORNER_L.stl**
- RIGHT WALL CORNER - **[b]_x1_K1C_V3_WALL_CORNER_R_PTFETUBE_HOLE.stl**
- HINGES - **[c]_x1_K1C_V3_LEFT_HINGE.stl - [c]_x1_K1C_V3_RIGHT_HINGE.stl**
- HANDLE - **[c]_x1_K1C_V3_HANDLE.stl**
- LID CLOSER - **[b]_x1_K1C_V3_LID_CLOSER.stl**
- FILAMENT SENSOR SPACER - **[b]_x4_K1C_V3_FILAMENT_SENSOR_3mm_SPACER.stl**

**NEW PARTS TO PRINT:**

- 2x SIDE FRAME – **[a]_x2_K1C_V3_FRAME_SIDE.stl**

- 1x SIDE WALL - **b]_x2_K1C_V3_WALL_SIDE**
- 1x RIGHT WALL CORNER - **[b]_x3_K1C_V3_WALL_CORNER_R.stl**
- 1x UPDATED BACK WALL – **CFS_MOUNT_KIT FOLDER**
- 1x UPDATE LEFT WALL CORNER – **CFS_MOUNT_KIT FOLDER**

**/////PARTS LIST FOR PRINTING THE RISER WITH THE CFS MOUNT V2**

**EXCLUDED PARTS:**

- BACK WALL- **[b]_x1_K1C_V3_WALL_BACK.stl**
- 1x LEFT WALL CORNER - **[b]_x4_K1C_V3_WALL_CORNER_L.stl**
- RIGHT WALL CORNER - **[b]_x1_K1C_V3_WALL_CORNER_R_PTFETUBE_HOLE.stl**
- FILAMENT SENSOR SPACER - **[b]_x4_K1C_V3_FILAMENT_SENSOR_3mm_SPACER.stl**

**NEW PARTS TO PRINT:**

- 1x UPDATED BACK WALL – **CFS_MOUNT_KIT FOLDER**
- 1x UPDATE LEFT WALL CORNER – **CFS_MOUNT_KIT FOLDER**
- 1x RIGHT WALL CORNER - **[b]_x3_K1C_V3_WALL_CORNER_R.stl**

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***INSTALLANTION INFO - FILAMENT SENSOR CABLE**

If you’re having trouble connecting the filament sensor because the cable is too short, start by removing the printer’s bottom cover and cutting the zip ties holding the cable in place. If it’s still too short, it’s likely glued inside the raceway. In that case, you’ll need to remove the entire cable cover and carefully free it from the superglue.

## UPDATE 0.6 30/01/2025 - New Chain Wall

In this new version, the vents on the inside of the wall have been partially closed to eliminate the noise that occurs when the chain rubs against them during operation.


## UPDATE 0.5 19/12/2024 - New closed wall versionUPDATE 0.4 | 22/11/2024 - Filament sensor wires

To get more slack for the sensor wires, you just need to remove the bottom cover and cut the two (usually) zip ties holding the wires in place, and you'll have enough slack.

## UPDATE 0.3 | 03/09/2024 - Material quantity by color

[a] - Polymaker PolyLite ABS Galaxy Dark Grey - 128.39g

[b] - Polymaker PolyLite ABS Black - 383.06g

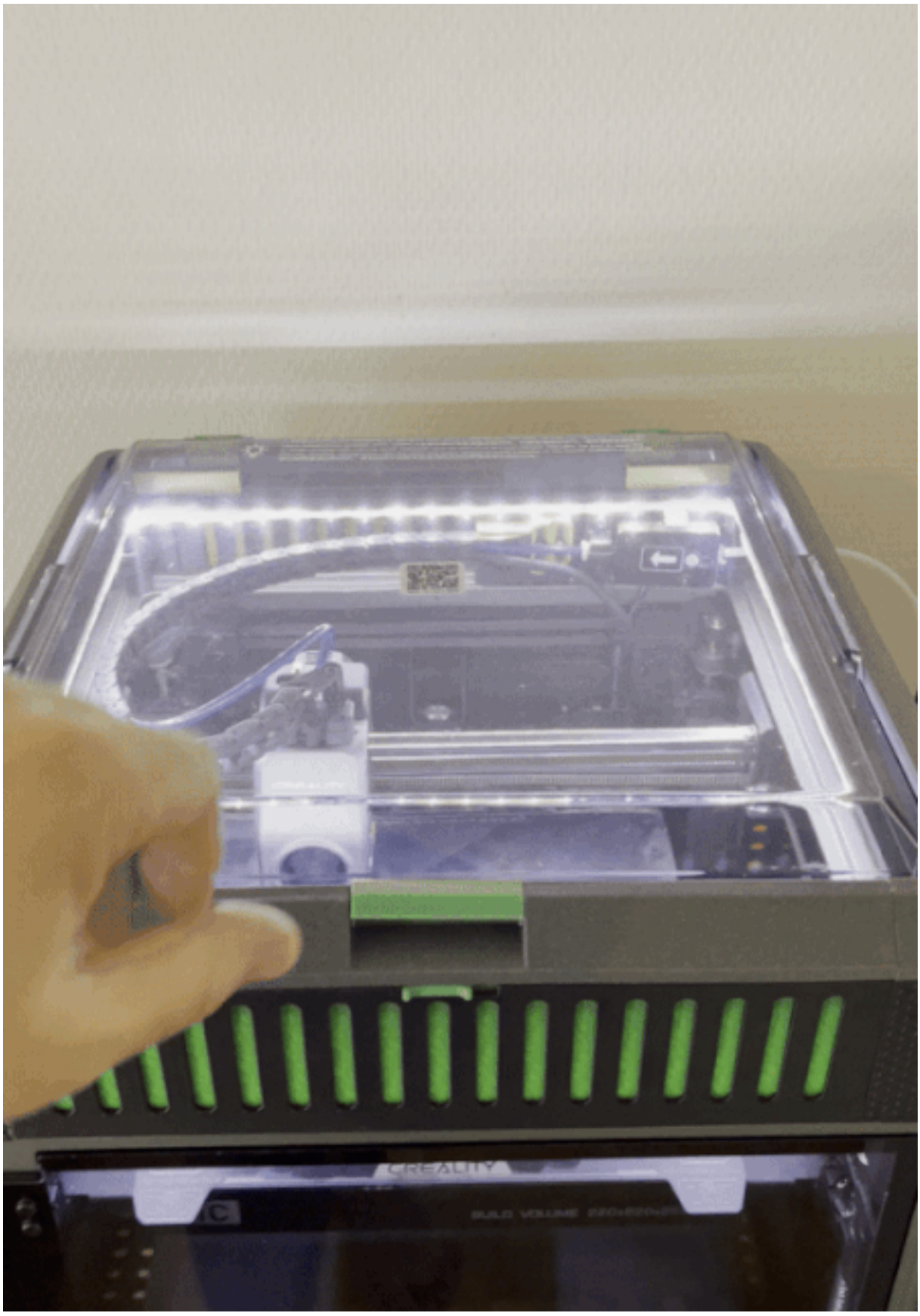
[c] - Polymaker PolyLite ABS Green - 83.1g

## UPDATE 0.2 | 14/08/24

Check this video for fine-tuning filament settings and dimensional accuracy:
https://youtu.be/7BUJLbQUABY?si=EGsZtkVig8zLeMMX

- If the sensor cable is too short and you can't connect it to the sensor, you'll need to remove the bottom cover of the printer, and you’ll see some zip ties holding the cable in place.

## UPDATE 0.1 | 26|07|2024 - The project is complete



Below is the list of updated files, including a new file.

**LIST OF UPDATED FILES:**
[b]_x1_K1C_V3_WALL_CORNER_R_PTFETUBE_HOLE
[c]_x1_K1C_V3_HANDLE
[c]_x1_K1C_V3_LEFT_HINGE
[c]_x1_K1C_V3_RIGHT_HINGE
[c]_x4_K1C_V3_VENTS

**NEW FILES:**
[b]_x4_K1C_V3_FILAMENT_SENSOR_3mm_SPACER
*Apply these spacers with the filament sensor to distance it from the LEDs

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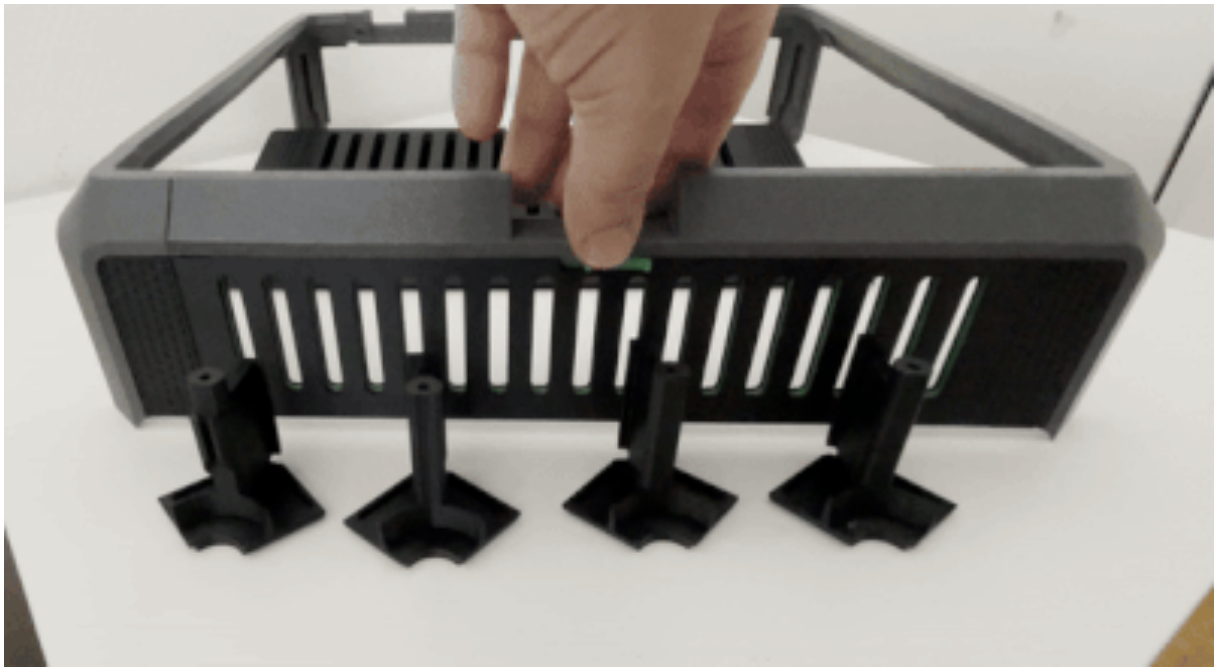
**NEW INSERTS**

The inserts have been updated. The 5mm inserts left marks on the frame's exterior, so please use the new 4mm inserts instead.

**Link to new inserts: https://amzn.to/42NE3e2**

**SLIDING**

For smooth sliding like in the video, use scissors or a metal object that fits inside the walls. Move it back and forth several times. This will clean up the internal overhangs that cause the slider to not move smoothly.



## RISER FEATURES:

- **MOUNTING SYSTEM:** The parts are secured together with bolts and inserts. The only glued part is the flap that closes the cut-out on the back of the LID.

- **VENTILATION:** It has 360° ventilation, the highest ventilation I have ever designed in a riser.
- **EMBED LID:** The LID is embedded in the frame, giving a cleaner look. Despite being embedded in the frame, the usable space inside the printer is the same as the V2 50mm [another of my projects].
- **HINGES:** The hinges open 110° (allowing printing with the LID open) and have an inner flap that ensures alignment of the LID with the frame.
- **HANDLE:** It has a handle (press-fit, but I have a version with a fixing tab for the LID if needed in the future).
- **LIGHTING UPGRADE:** There is a predefined space for an LED strip. One of the inner corners has a fixation point for the wires if LEDs are installed.
- **FILAMENT SENSOR REPOSITIONING:** Fixation points on the back wall to place the filament sensor inside the riser. One of the side wall parts has a hole for the PTFE tube.
- **CHAIN ADJUSTMENT:** Mounting points on the back wall for the piece that allows adjusting the chain height.

**/////THINGS to ADD**

- Front Chain Riser (12mm) - LINK

**////ATTENTION**

- Make sure the bolts aren't too long. They shouldn't go past the frame's thickness to avoid damaging any internal components. **[ The bolts listed have been tested ]**

**/////IMPORTANT**

- Before starting the print of the riser, I recommend printing this tool https://www.printables.com/model/899470-xyz-accuracy-test-calibration-tool to test the dimensional accuracy of your printers.
- Use this tool https://www.printables.com/model/480907-shrinkage-calculator-dimensional-calibration-tool to determine the correct scale based on the filament shrinkage you'll be using.
- The riser pieces were developed with very tight tolerances (0.2mm) to ensure proper alignment and functionality of the assembly, so it's important to make sure everything is well-calibrated or that you understand what is needed for everything to work correctly.

**///// ASSEMBLY GUIDE**

- Scroll to the bottom of the download page to find the installation guide.

**/////All files are labeled with material/color and quantity**

- [a] - ABS or similar material | Color 1
- [b] - ABS or similar material | Color 2
- [c] - ABS or similar material | Color 3

[ The vents [c] can be printed in a different material - PLA ]

[ Do not print the hinges and the chain adjustment piece in PLA - use a more heat-resistant material ]

- x(number) - number of parts to print

## This remix is based on


**Creality K1 / K1C Unibody Riser Frame**
by BlenderRender

## Model files

**BACK_WALL_INVERTED_FILAMENT SENSOR** 1 file

**b_x1_k1c_v3_wall_back_inverted_sensor.stl**

**CFS_MOUNT_KIT** 2 files

**b_x1_k1c_v3_wall_back_cfs.stl**

**b_x1_k1c_v3_wall_corner_l_ptfe_tube_cfs.stl**

## FRAME

6 files

**a_x4_k1c_v3_frame_corner.stl**

**a_x1_k1c_v3_frame_front.stl**

**a_x2_k1c_v3_frame_side.stl**

**a_x1_k1c_v3_frame_back.stl**

**b_x3_k1c_v3_inner_corner.stl**

**b_x1_k1c_v3_inner_corner_led_wire.stl**

## WALLS - VENTS VERSION

5 files

**b_x1_k1c_v3_wall_front.stl**

**b_x2_k1c_v3_wall_side.stl**

**b_x1_k1c_v3_wall_back.stl**

**b_x2_k1c_v3_wall_chain_side.stl**

**c_x4_k1c_v3_vents.stl**

## WALLS - CLOSE VERSION

3 files

**b_x1_k1c_v3_wall_front_close.stl**

**b_x2_k1c_v3_wall_side_close.stl**

**b_x1_k1c_v3_wall_back_close.stl**

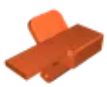
**b_x3_k1c_v3_wall_corner_r.stl**

**b_x1_k1c_v3_wall_corner_r_ptfetube_hole.stl**

**b_x4_k1c_v3_wall_corner_l.stl**

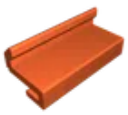
**b_x1_k1c_v3_lid_closer.stl**

**b_x4_k1c_v3_filament_sensor_3mm_spacer.stl**



**c_x1_k1c_v3_left_hinge.stl**

**c_x1_k1c_v3_right_hinge.stl**



**c_x1_k1c_v3_handle.stl**

**c_x1_k1c_v3_chain_adjustment.stl**

# Other files

**lid_riser_k1c_v3_frame_extention_guide.pdf**

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