

Raised and engraved labels in FreeCAD

CAD-016 / REV A / 2026.09.01

Create real text geometry for printed labels, keeping its font and placement reproducible.

STATUS	Recovered/Partial
CLASSIFICATION	CAD
MATERIAL	CAD / AUTOMATION
DISPOSITION	PUBLIC / RECOVERED/PARTIAL
CATEGORY	CAD / Scanning / Automation
RECORD TYPE	how-to

GOAL

Run the first test described in this guide and record the result for raised and engraved labels in freecad.

SOURCE STATE

New reference guidance; not a recovered test result

EQUIPMENT

- FreeCAD
- Representative test model
- Measurement or inspection method

METHOD / STEPS

1. Create a ShapeString using an available font file and set text, size and tracking.
2. Place the text relative to stable model references and inspect closed letter outlines.
3. Extrude and fuse for a raised label, or cut an overlapping extrusion for engraving.
4. Recompute and inspect the final solid, then export and check the slicer preview at the intended scale.

THINGS TO WATCH FOR

Text that only touches a surface can fail a boolean operation; provide deliberate overlap. Thin serifs and tiny counters may disappear in FDM printing.

FIRST TEST / WHAT TO RECORD

The exported mesh contains the label geometry, not just a visible annotation.

RESULT / WHERE THIS STANDS

The exported mesh contains the label geometry, not just a visible annotation.

TROUBLESHOOTING

- Text that only touches a surface can fail a boolean operation; provide deliberate overlap. Thin serifs and tiny counters may disappear in FDM printing.

SPECIFICATION

TOOL PATH	FreeCAD
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DELIVERABLE	HOW-TO
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VALIDATION	Representative model / known dimension
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STATUS	Recovered/Partial
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DEVELOPMENT HISTORY

2026.09.01 / Rev A

Imported as an independent manifest record; public copy keeps uncertainty visible.

REFERENCE NOTES

FreeCAD reference (https://wiki.freecad.org/Draft_ShapeString_tutorial).

HOW-TO SOURCES

FreeCAD reference

https://wiki.freecad.org/Draft_ShapeString_tutorial

RELEASED MATERIAL / SOURCE LINKS

cad-016-public-summary.txt

PUBLIC SUMMARY / RECOVERED NOTES

<https://u225x.com/downloads/manifest-records/cad-016-public-summary.txt>

RETURN TO THE LIVING RECORD

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This PDF preserves the public notes at this revision. Visit the record for updates and attached images.

<https://u225x.com/record/CAD-016>