



NIH Surgical Mask Tension Release Band - Ear Savers



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Summary

This is the NIH approved Surgical Mask Tension Release Band.



49.25 hrs



20 pcs



0.30 mm



0.40 mm



PLA
PET



672 g



Prusa
MK3/S/S+

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Tags: [ear](#) [saver](#) [strap](#) [tension](#) [relief](#) [nih](#) [earsaver](#)
[omaha](#) [earsavers](#)

This is the NIH approved Surgical Mask Tension Release Band. I am only posting this here to provide an easy reference to print files and gcodes for printers to be used by Prusa Groups. It was invented by someone else, and is listed on various websites.

<https://3dprint.nih.gov/discover/3dpx-013410>

So far we have been able to print and distribute over 1900 in the Omaha, NE metro area. I have found that a mix of small and large are needed, and I have included gcode to print in sets of 9 and 11.

Group: <https://www.prusaprinters.org/group/midwest-printers-omaha-KRnPPQE>

EDIT: Sorry I neglected this, I had no idea so many were downloading from here. I am in the process of adding various layouts and versions. The layouts help prevent sheet damage by allowing the printer to cycle thru various layouts instead of using the exact same spot and wearing out the PEI; especially on the smooth sheets in PLA. I also have found that most facilities prefer the 100% sized band now (for adults), and local hospitals have started to allow custom versions that save materials. I know there are a ton of variations now, but these are the models we have been distributing in the Omaha area.

UPDATE COMPLETE: Full Sheet files and gcodes have been uploaded. NIH versions scaled at 100% and 85%, as well as minimal version that is pending NIH review. It uses about 30% less filament.

Print instructions

PETG or PLA

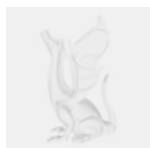
.4mm Nozzle

.3mm Layer Height

I found that using a .6mm nozzle did not justify the loss in quality for the savings in time. Maybe a certain forum poster will stop by and provide tips on increasing speed and size without losing quality.

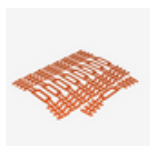
GCodes sliced for Prusament PLA & PETG

This remix is based on

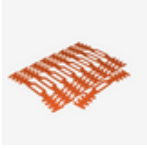


NIH 3D - Surgical Mask Tension Release Band for Ear Comfort & Extended Use

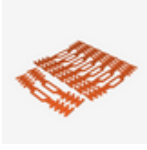
Model files



9x_minimal_bottom.3mf



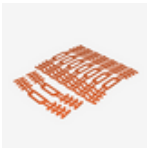
9x_nih_bottom.3mf



9x_nih_left.3mf



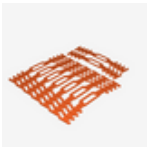
11x_nih_85_bottom.3mf



9x_minimal_left.3mf



11x_nih_85_top.3mf



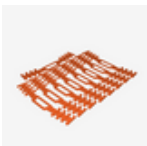
9x_nih_right.3mf



9x_minimal_right.3mf

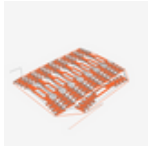


9x_minimal_top.3mf



9x_nih_top.3mf

Print files



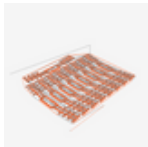
9x_nih_bottom_03mm_pla_mk3s_2h42m.gcode

⌘ PLA ⌘ 0.40 mm ⌘ 0.30 mm ⌚ 2.70 hrs ⚖ 40 g 🖨 Prusa MK3/S/S+



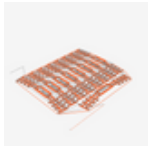
9x_nih_right_03mm_petg_mk3s_2h45m.gcode

⌘ PET ⌘ 0.40 mm ⌘ 0.30 mm ⌚ 2.76 hrs ⚖ 41 g 🖨 Prusa MK3/S/S+



9x_minimal_top_03mm_pla_mk3s_2h21m.gcode

⌘ PLA ⌘ 0.40 mm ⌘ 0.30 mm ⌚ 2.35 hrs ⚖ 29 g 🖨 Prusa MK3/S/S+



9x_minimal_bottom_03mm_pla_mk3s_2h21m.gcode

⌘ PLA ⌘ 0.40 mm ⌘ 0.30 mm ⌚ 2.35 hrs ⚖ 29 g 🖨 Prusa MK3/S/S+



9x_minimal_right_03mm_petg_mk3s_2h22m.gcode

⌘ PET ⌘ 0.40 mm ⌘ 0.30 mm ⌚ 2.36 hrs ⚖ 30 g 🖨 Prusa MK3/S/S+



9x_minimal_top_03mm_petg_mk3s_2h22m.gcode

⌘ PET ⌘ 0.40 mm ⌘ 0.30 mm ⌚ 2.37 hrs ⚖ 30 g 🖨 Prusa MK3/S/S+



9x_nih_left_03mm_petg_mk3s_2h45m.gcode

⌘ PET ⌘ 0.40 mm ⌘ 0.30 mm ⌚ 2.74 hrs ⚖ 41 g 🖨 Prusa MK3/S/S+



9x_nih_right_03mm_pla_mk3s_2h42m.gcode

⌘ PLA ⌘ 0.40 mm ⌘ 0.30 mm ⌚ 2.70 hrs ⚖ 40 g 🖨 Prusa MK3/S/S+



9x_minimal_bottom_03mm_petg_mk3s_2h22m.gcode

🌀 PET 🌀 0.40 mm ≡ 0.30 mm ⌚ 2.37 hrs ⚖️ 30 g 📄 Prusa MK3/S/S+



9x_minimal_left_03mm_petg_mk3s_2h22m.gcode

🌀 PET 🌀 0.40 mm ≡ 0.30 mm ⌚ 2.36 hrs ⚖️ 30 g 📄 Prusa MK3/S/S+



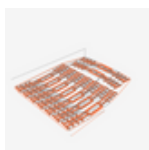
9x_minimal_left_03mm_pla_mk3s_2h21m.gcode

🌀 PLA 🌀 0.40 mm ≡ 0.30 mm ⌚ 2.34 hrs ⚖️ 29 g 📄 Prusa MK3/S/S+



9x_nih_bottom_03mm_petg_mk3s_2h45m.gcode

🌀 PET 🌀 0.40 mm ≡ 0.30 mm ⌚ 2.75 hrs ⚖️ 41 g 📄 Prusa MK3/S/S+



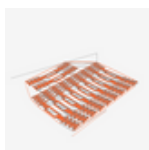
9x_minimal_right_03mm_pla_mk3s_2h20m.gcode

🌀 PLA 🌀 0.40 mm ≡ 0.30 mm ⌚ 2.34 hrs ⚖️ 29 g 📄 Prusa MK3/S/S+



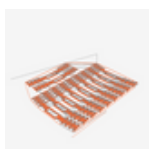
9x_nih_left_03mm_pla_mk3s_2h42m.gcode

🌀 PLA 🌀 0.40 mm ≡ 0.30 mm ⌚ 2.69 hrs ⚖️ 40 g 📄 Prusa MK3/S/S+



11x_nih_85_top_03mm_petg_mk3s_2h10m.gcode

🌀 PET 🌀 0.40 mm ≡ 0.30 mm ⌚ 2.17 hrs ⚖️ 28 g 📄 Prusa MK3/S/S+



11x_nih_85_top_03mm_pla_mk3s_2h8m.gcode

🌀 PLA 🌀 0.40 mm ≡ 0.30 mm ⌚ 2.14 hrs ⚖️ 28 g 📄 Prusa MK3/S/S+



11x_nih_85_bottom_03mm_petg_mk3s_2h10m.gcode

🌀 PET 🌀 0.40 mm ≡ 0.30 mm ⌚ 2.17 hrs ⚖️ 28 g 📄 Prusa MK3/S/S+



9x_nih_top_03mm_petg_mk3s_2h45m.gcode

🌀 PET 🌀 0.40 mm 📏 0.30 mm ⌚ 2.75 hrs ⚖️ 41 g 🖨️ Prusa MK3/S/S+



11x_nih_85_bottom_03mm_pla_mk3s_2h8m.gcode

🌀 PLA 🌀 0.40 mm 📏 0.30 mm ⌚ 2.14 hrs ⚖️ 28 g 🖨️ Prusa MK3/S/S+



9x_nih_top_03mm_pla_mk3s_2h42m.gcode

🌀 PLA 🌀 0.40 mm 📏 0.30 mm ⌚ 2.70 hrs ⚖️ 40 g 🖨️ Prusa MK3/S/S+

[Find source .stl files on Thingiverse.com](#)

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