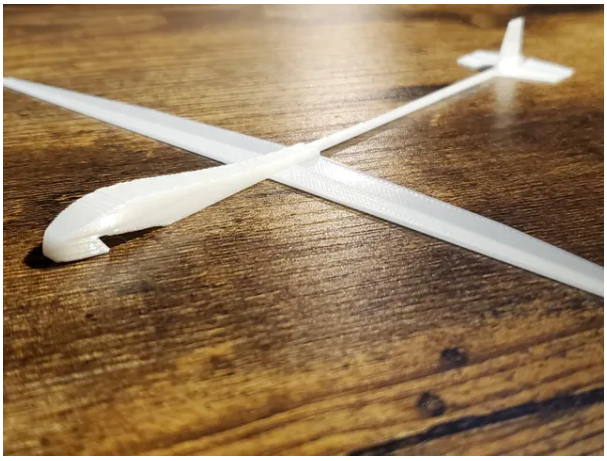


Stable glider V7a + Notch for rubber band launch (50m+ range)

JoeRixon

VIEW IN BROWSER

updated 27. 1. 2026 | published 27. 1. 2026

Summary

A glider that I hope to eventually have the qualities of: Best gliding 18^3mm, quickest to print. (Multiple iterations)

0.29 hrs	12 pcs	0.15 mm 0.20 mm	0.40 mm	PLA	2 g	Prusa MINI / MINI+

Learning > Engineering

Tags: prusa toy dart drone plane fast engineering pla easy chuck uav aircraft flying sail flight clean wing glider fly aviation foil prusamini newtonian airfoil aeroplane generalaviation launch inputshaping inputshaper throw sailplane far chuckglider aeronautics aerofoil throwglider thrownglider highaspectratio

This glider will be:

- Furthest gliding
- Quickest to print
- Printable on Prusa mini
- Continually improved through Iterative design

Flight preparation:

- Bend wings upward (5 degrees is best I've found) (Dihedral)
- Bend rear elevators **UP** (points nose up)
- Hold it just behind the wings
- Throw **medium hard (or launch with rubber band)**

Check out another glider: https://www.printables.com/model/478442-lockheed-martin-rq-3-darkstar-rubber-band-launchth

V7a footage

V7a footage2

Some footage of the glider in slow-motion (15%)(V4)

Changelog:

V8: (coming soon)

- Thicker Kline–Fogleman airfoil allowing for possbile joining of parts to make longer stiffer wings
- winglets

V7a-IS:

- Added input shaping BGCODE (Input shaping, 5% infill (lightning).

V7a:

- Lightning infill (5%) GCODE
- Even bigger notch for rubber band launch
- CFD analysis soon

VBW:

- Added alternative 355mm wingspan model to glue together (will make a clip together version when I figure out how)

V6:

- Removed wing area from V5.
- Added a KFm2 aerofoil to the wing (stepped wing)
- Enlarged wingspan by 5mm (still allows for skirt)
- Reduced wing thickness to 0.2mm
- Updated pictures to V6

V5(untested outside):

- Scaled the wing size up by 100% in the Y direction giving the glider a lower aspect ratio

(Also try the MQ-9 reaper thrown-glider and my remix of the 'Stable flyer V' by **João Hackbart**)

Fuselage based on **João Hackbart's Stable flyer VI**

Footage of stupid things I've tried:

- 510mm long wingspan

This remix is based on

Stable Flyer VI - Small Toy Glider

by João Hackbart

Model files

V7a NOTCH 4 files

stable-glider-v7a-notch.stl

bigger-notch-v7a.stl

bigger-notch-v7a.stl

stable-glider-v7a-notch.stl

Stable glider V6 (KlineFogleman aerofoil) 1 file

stable-glider-v6-klinefogleman-aerofoil.stl

Stable glider V5 (UNTESTED OUTSIDE) 1 file

stable-glider-v5.stl

Stable Glider V4 (OLD) 1 file

stable-glider-v4.stl

(Highest aspect-ratio wing)

Silly attempts that DON'T WORK 2 files

ring-extention-glider.stl

stable-glider-ring.f3d

Print files

V7a NOTCH 2 files

bigger-notch-v7a_04n_015mm_pla_miniis_17m.bgcode

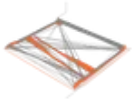
PLA 0.40 mm 0.15 mm 0.29 hrs 2 g

input shaping 5% infill (lighting)

stable-glider-v7a.gcode

PLA 0.40 mm 0.20 mm 0.38 hrs 3 g Prusa MINI / MINI+

VBW (Big wing) Glue together 355mm wing 1 file



big-wing-glue.gcode

PLA 0.40 mm 0.20 mm 0.70 hrs 5 g Prusa MINI / MINI+

Stable glider V6 (KlineFogleman aerofoil)

2 files

stable-glider-v6-klinefogleman-aerofoil.gcode

PLA 0.40 mm 0.20 mm 0.37 hrs 3 g Prusa MINI / MINI+

stable-glider-v6-5-infill.gcode

PLA 0.40 mm 0.20 mm 0.37 hrs 3 g Prusa MINI / MINI+

Stable glider V5

3 files

stable-glider-v5-15.gcode

PLA 0.40 mm 0.20 mm 0.46 hrs 3 g Prusa MINI / MINI+

stable-glider-v5-10.gcode

PLA 0.40 mm 0.20 mm 0.45 hrs 3 g Prusa MINI / MINI+

stable-glider-v5-5.gcode

PLA 0.40 mm 0.20 mm 0.45 hrs 3 g Prusa MINI / MINI+

Stable glider V4 (Highest aspect-ratio wing) (OLD)

3 files

stable-glider-v4-15-infill.gcode

PLA 0.40 mm 0.20 mm 0.37 hrs 3 g Prusa MINI / MINI+

(Highest aspect-ratio wing)

stable-glider-v4-10-infill.gcode

PLA 0.40 mm 0.20 mm 0.37 hrs 3 g Prusa MINI / MINI+

(Highest aspect-ratio wing)

stable-glider-v4-5-infill.gcode

PLA 0.40 mm 0.20 mm 0.37 hrs 3 g Prusa MINI / MINI+

(Highest aspect-ratio wing)

Silly attempts that DON'T WORK 1 file

glider510mmwingnotwork.gcode

PLA 0.40 mm 0.20 mm 0.67 hrs 5 g Prusa MINI / MINI+

Glider with extendable wings to 510mm that cause it to flap and wiggle

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