Landing Gear Mod-pack

Initial release

Warszawa 2021

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Version	Date	Description of changes
-	4 JAN 2021	Initial release

1.   General overview
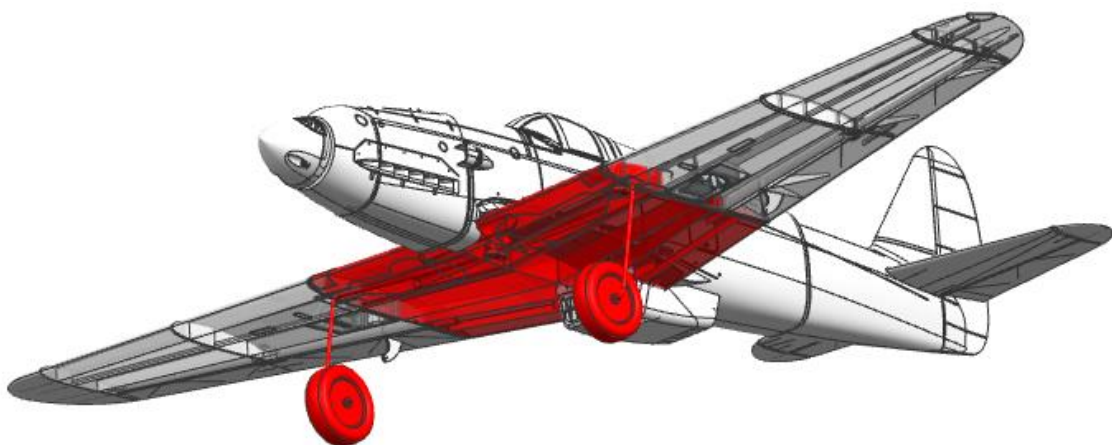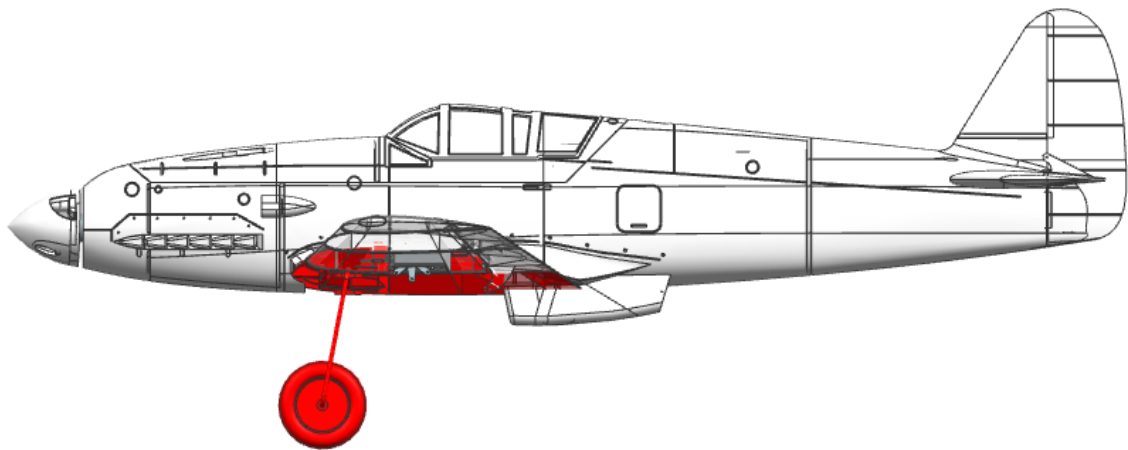
2. Printing comments

Wing sections should be printed using same profile as original Wing 1 section (vase mode, no top/bottom layers, 10% overflow minimum – can be increased to 20% to add rigidity and strength.

Inserts and mounts to be printed in orientation as shown, print with 2 perimeters minimum and 18% infill minimum.

Print layer height: 0.20mm

Initial layer height: 0.20mm

Print hot and with no cooling.

3. Bill Of Materials (BOM)

To assemble the gear model you will need:

~ 600 mm 3mm spring wire (2 x 290mm sections)

4 x M2x 10mm self-tapping screw

60 mm 1.5mm dia carbon rodor steel wire

60 mm diameter wheels

4 stop collars for 3mm wire

4. Tools

To assemble the model you will need:

1. Medium CA glue
2. Soldering iron/hot knife to cut out the openings in printed parts, remove bridges & supports
3. Philips PH1 screwdriver (M2 screws)
4. Band saw/ pliers/ hammer/ vise to cut & bent 3mm wire
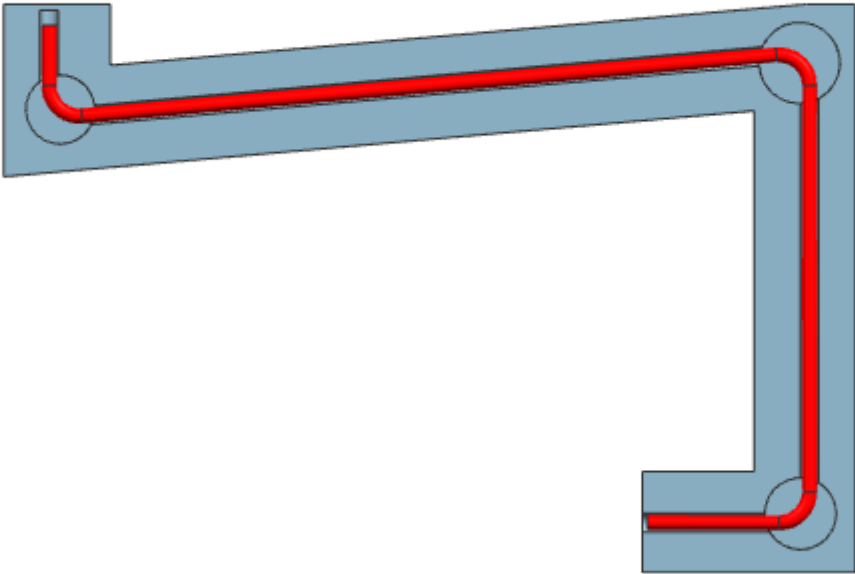5. Allen wrench to secure stop-collars

6. Assembly
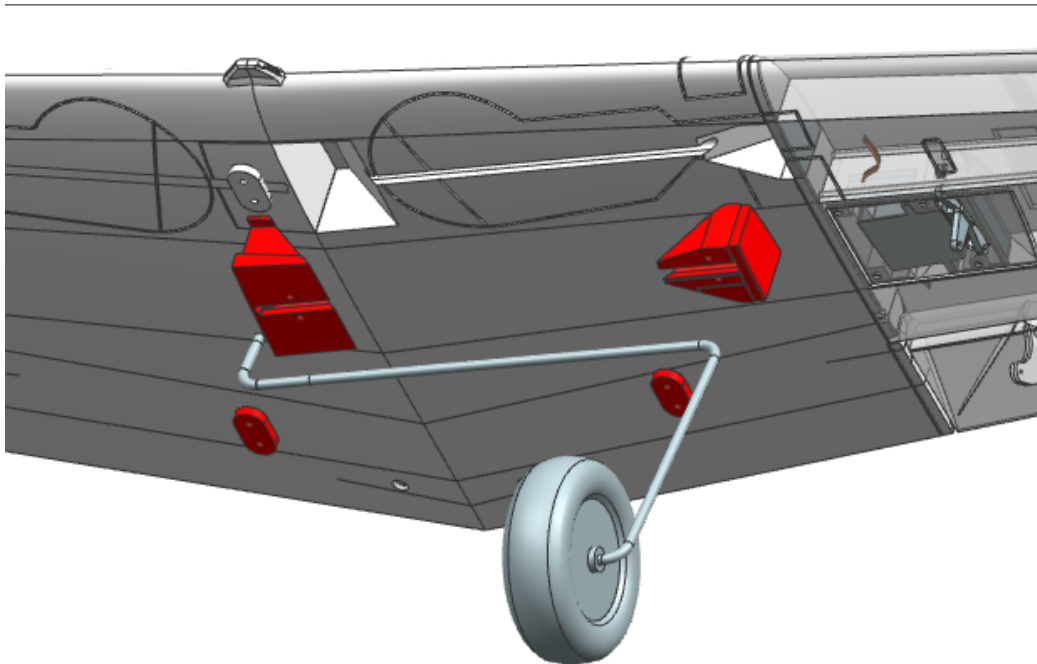
The printed mounting blocks have to be installed into the Wing section 1 panel before wing assembly.
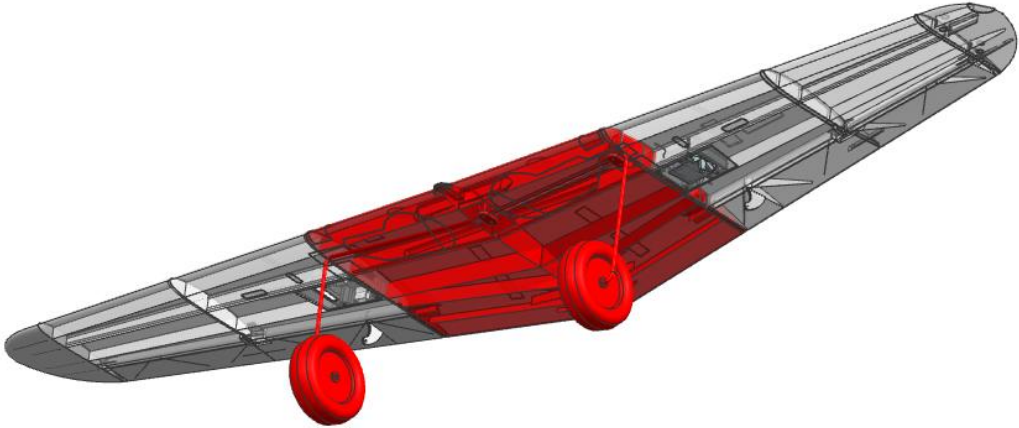Refer to original manual for Wing assembly instructions.
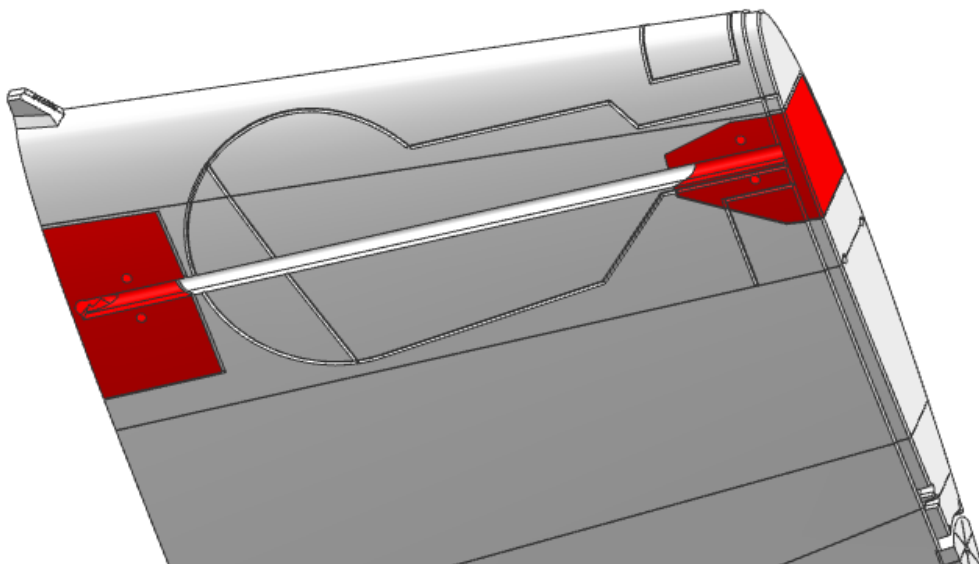
Use 3D Printed template to bend the wire.

Secure landing gear with M2 self-tapping screws.

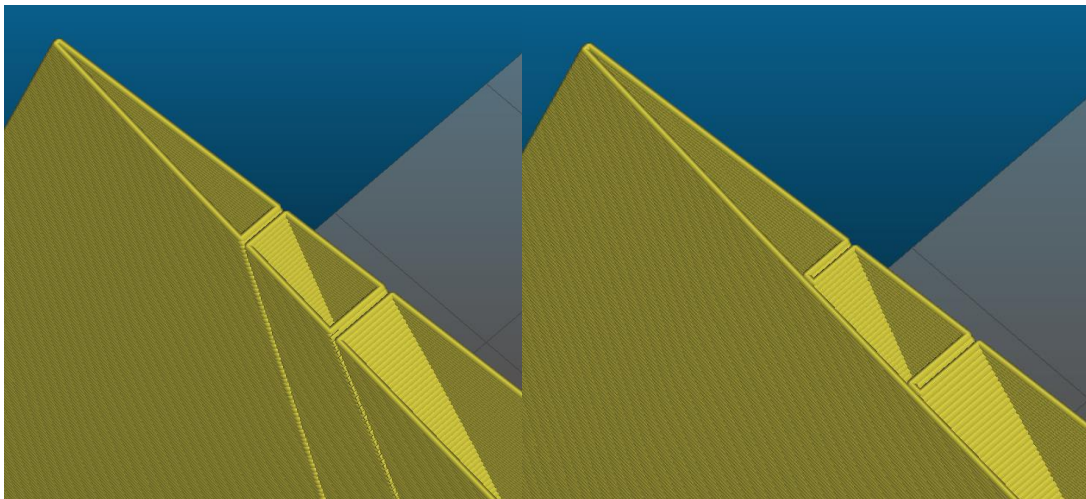The wheels to be minimum 60mm in diameter.

Install clamp collars to prevent the wheels from falling away.

Glue a section of 1.5 mm dia carbon rod (or steel wire) along tail/rudder to protect it during landing.

1.5mm dia carbon rod glued along bottom of the ruder/tail section for reinforcement purpose.

45 – 60mm
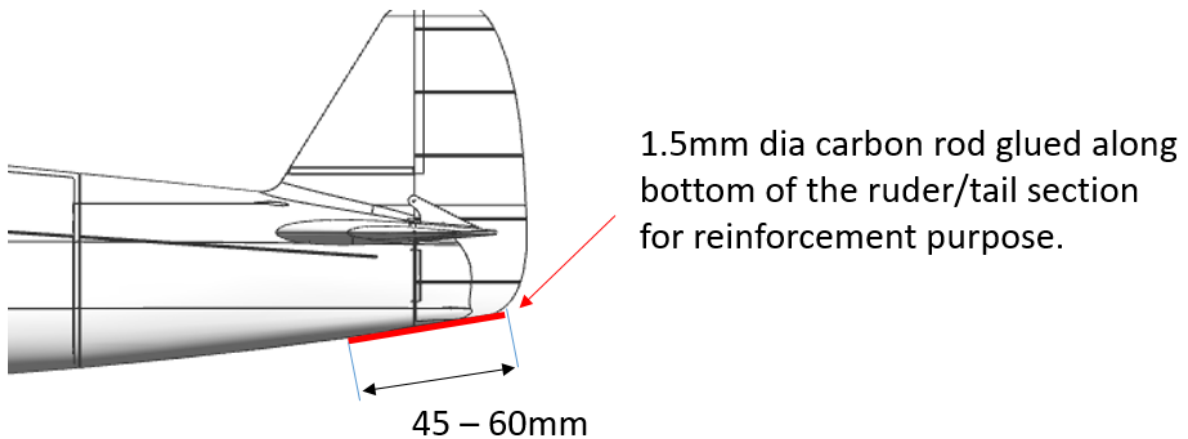
7.   Files print orientation & comments

Left: perimeter width: 0.4mm, Right perimeter width 0.35mm
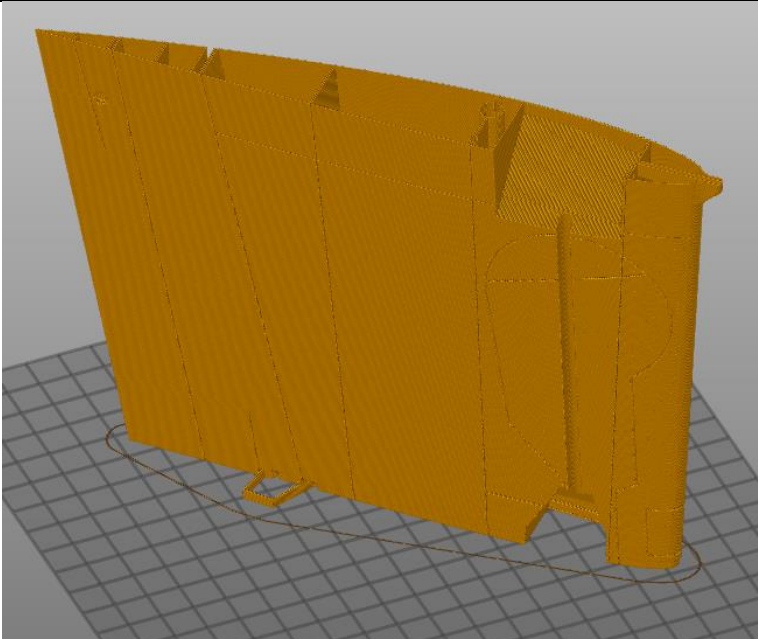
Set perimeter to 0.35mm and override the flow by 15% (flow multiplier set to 1.15) either in slicer, or manually in printer control display. This is to assure proper fuse of the internal structure to the skin.
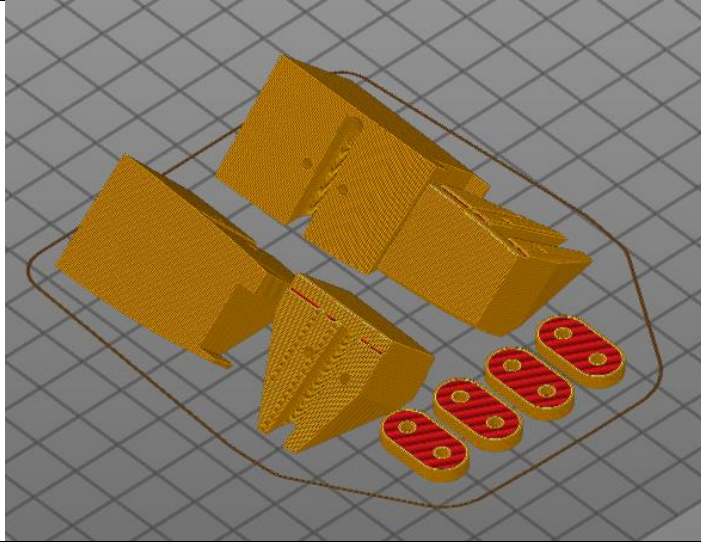
The slicer used for g-code generation is SuperSlicer (https://github.com/supermerill/SuperSlicer).

Profiles

Profile	1	2
Profile name	wing_vase	hardpoint
Default extrsion width [mm]	0,35	0,35
Layer height [mm]	0,20	0,20
Perimeters [-]	1	3
Infill [%]	0	18
Bottom layers [-]	0	3
Top layers [-]	0	3
Vase mode/ spiralize	Yes	No
Flow [%]	115%	100%

Gear pack

Part description	Print orientation visualization	Profile
Wing section 1 L + R		1

Mounting hardware& template		2