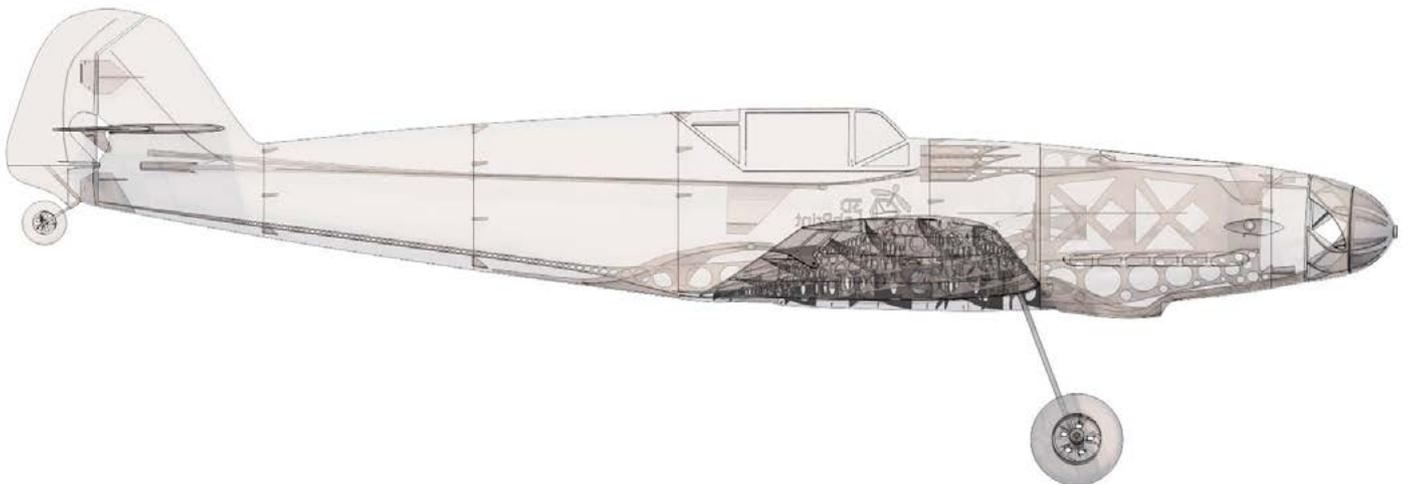




User Guide

rev. 2016/09



Fully 3d printable

Landing Gear conversion for Messerschmitt Bf 109 H

if you do not like belly landing, or just wanna taxi runway before take off...

Landing Gear conversion for 3D Lab Print Messerschmitt Bf 109H

Future of flying - Print your own plane

We still trying move things further, so this project is again full of other improvements for better durability , easier assembly , better geometry solution and so on..., we hope you enjoy it, although this print may test your competencies to and quality of your printer (welcome to the thin wall printing)

You need print all this parts instead the standard version...

Please, always when you made any changes verify C of G position.

Note: this conversion include only conversion parts (you will need buy Me 109H/F to complete whole plane)

me109_H_wing_L1_con.stl
me109_H_wing_R1_con.stl
me109_rudder_con.stl

me109_patern_LG.stl
me109_patern_LG_tail.stl

[See video guide #12](#)



H version 1032mm(40.6in)

Included:

1. STL 3d files (only LG conversion parts)

universal STL files designed for use with desktop FMD 3d printers and slicer software as Simplify3D (recommend) CURA or MatterControl (this STLs are not compatible with Slic3r).

2. Factory files for Simplify3D slicer

with all our setting, this Factory files included all you need, note: we use PRUSA i3 ORIGINAL printers so you may need adjust the basic printing parameters to match your printer or use it as a start point for you, please give a look to [Simplify3D](#)

3. Gcodes

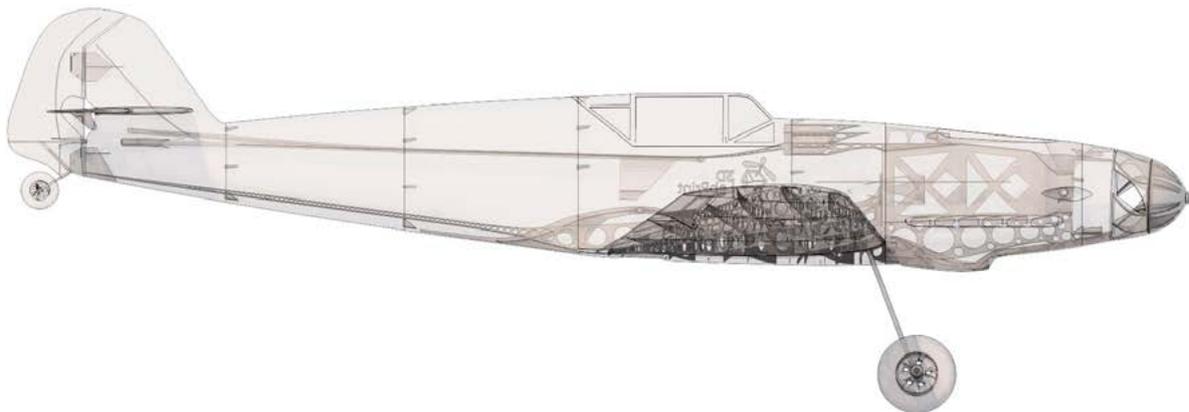
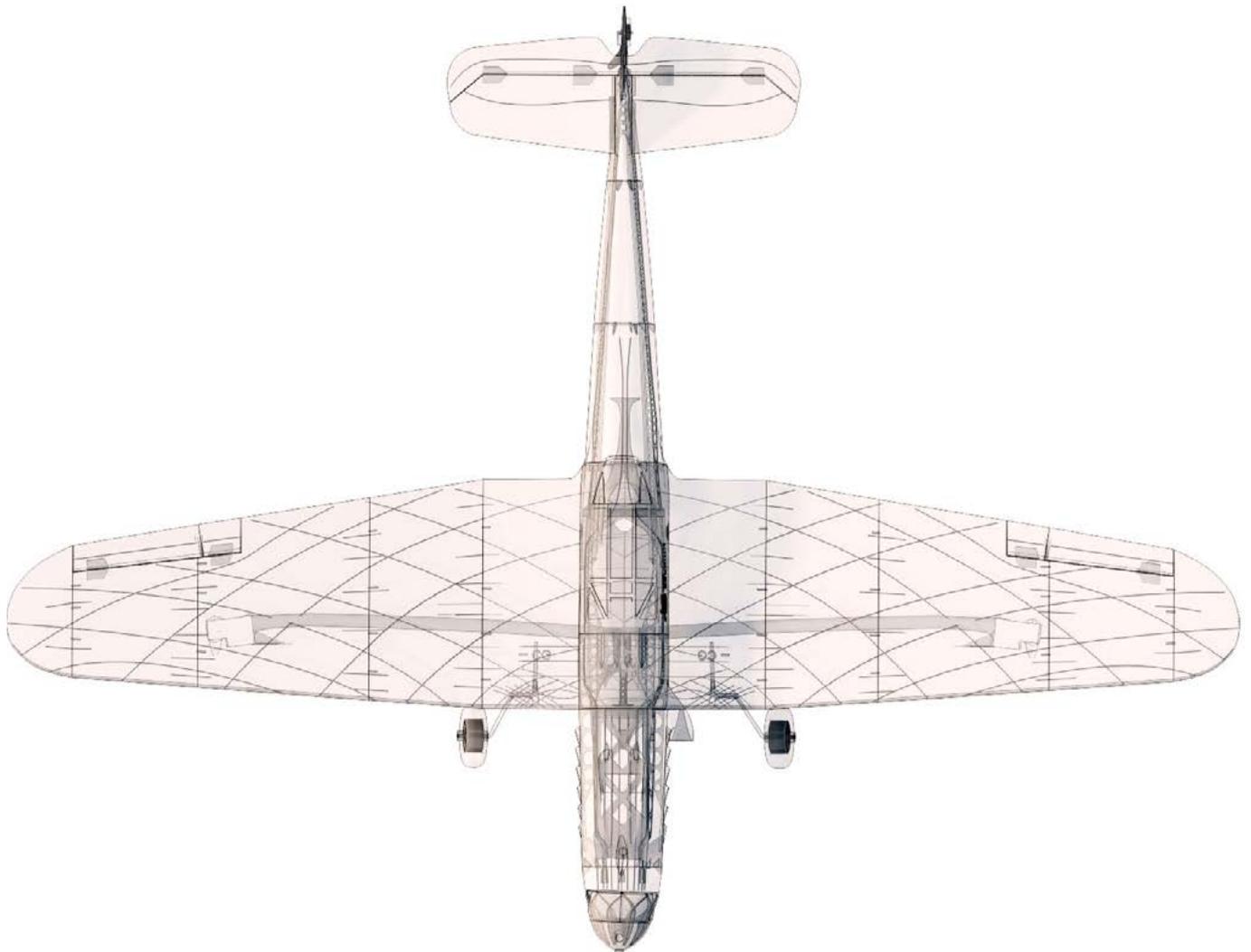
Basic Gcodes prepared for direct use, so universal as is possible. Should work with i3 style printers, you can try it out, but We can not guarantee that it will work with your printer. 100% works with PRUSA i3 ORIGINAL 3d printers...

4. Prepared settings for CURA and MatterControl slicers

If you dont like Simplify3D for any reason, there is always possibility to use another free slicer you can use our basic setting (setting files) as a start point and edit it as you need.

Landing Gear for Messerschmitt Bf 109 T - main parts weight list





771mm(30.55in)

Step By Step PDF/VIDEO userguide

1. Choose airplane at www.3DLabprint.com, our [Facebook](#) for live information...



Basic requirments (Me 109 H/F):

min volume 195/195/150mm (250/120/150)

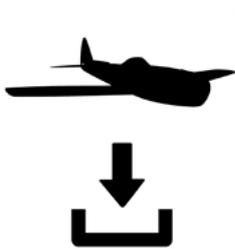
nozzle 0.4mm recommended (0.35 or 0.5mm alternatively)

Heated Bed recommended

PLA filament (or PETG, APLA, htPLA, PC-max....) not ABS

If you feel a little bit confused you can [download wing test part](#) from our websites or thingiverse, (the biggest part). Or contact support@3dlabprint.com

2. Create account, download

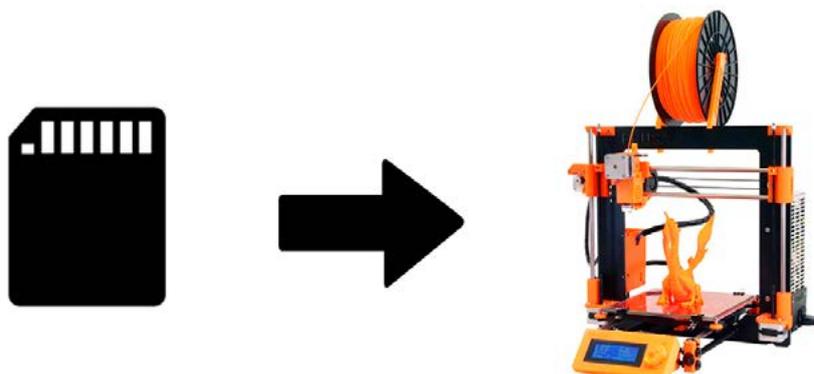


You will get download link for all files to your email (zipped) or you can log in to your account and download directly from our websites.

3. Gcodes preparing

options A Gcodes:

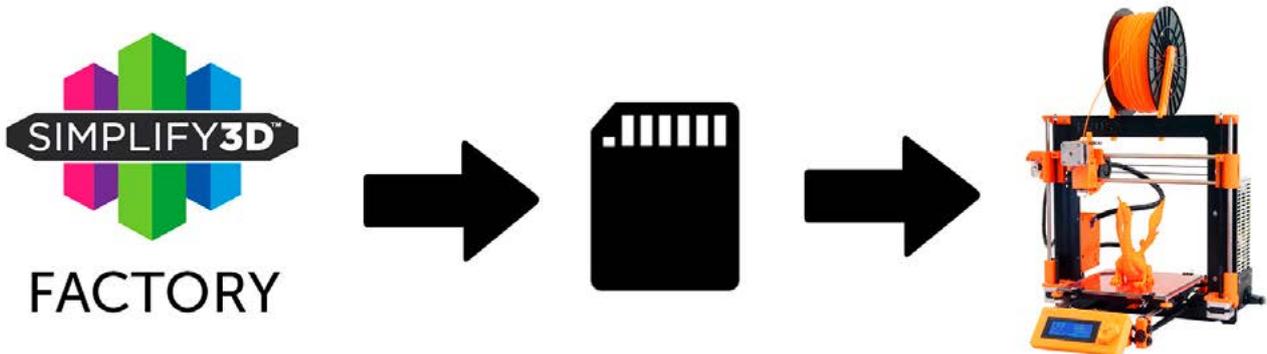
if your printer is i3 comptatible you can directly use [prepared gcodes](#), simply save each to SD card and let 3d printer do his job, HE temperature is set to 230 for best layer bonding, you can edit speed and temperature on your printer LCD only. If Gcodes does not work please proceed to the next options.



options B Factory files Simplify3D (recommended)

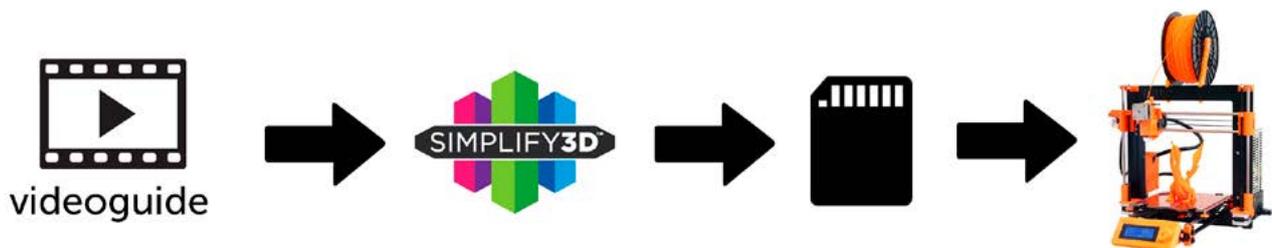
We prepare all you need in this files (basic FFF, parts arranged and so on...)

You can use this our setting as a start point and edit it as you need (adapt it for your printer), print only parts you need and so on... On moust 3d printers it should work as it is, but please give a look to the setting and edit it if is different to your printer, we are not liable for damages resulting from the use of our settings. If this does not work please proceed to the next option.



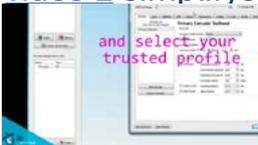
options C Simplify3D manual setting (for experts)

Use our [video guide 2](#) for proper setting... this is very good option and you will learn a lot about Simplify3d and become an 3d expert. Of course you spend a lot of time and youtube pause button will become your friend.



AND... please give a look to VideoGuides:

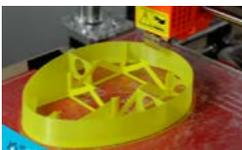
[video 2 Simplify3D setting](#)



[video 2.1 before start printing](#)



[video about Thin Wall Printing](#)



options D CURA or MatterControl

MatterControl and CURA are free :-)) and also gives very good results and airframe is still strong enough, slicer setting is very easy.

Please try [find right extrusion multiplier and temperature](#) for good weight and bets layer bonding, give a look to parts weight list for proper multiplier setting.

You can also use our [predefined](#) CURA or MC slicer setting file included in package (always adapt it for your printer, change build volume, filament diameter and so on... depends on your printer!!!):

[CURA_wing_fuse.ini](#) (wing and fuselage and so on... parts)

[CURA_ailer_elev.ini](#) (only ailerons, elevator and rudder parts)

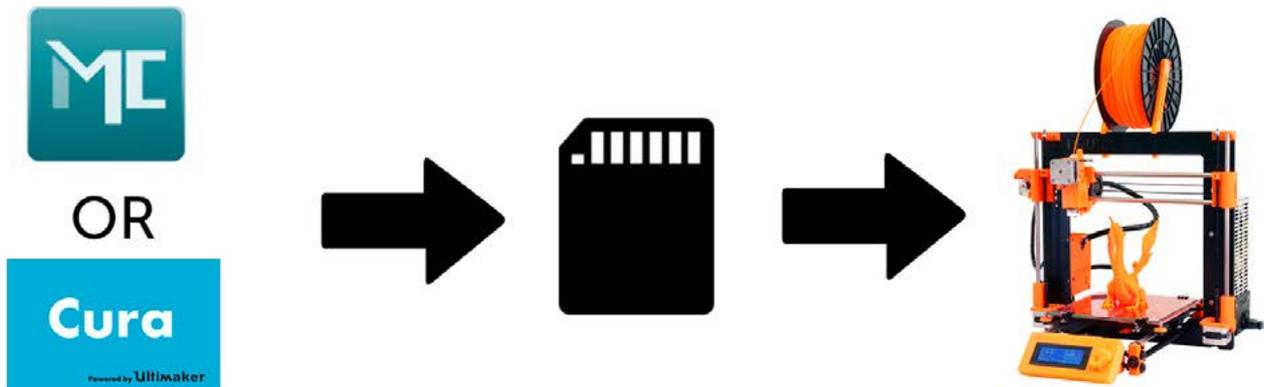
[CURA_thick.ini](#) (motor mount, battery holder, spinner)

OR

[MC_wing_fuse.slice](#) (wing and fuselage and so on... parts)

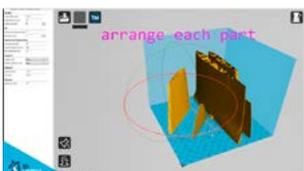
[MC_ailer_elev.slice](#) (only ailerons, elevator and rudder parts)

[MC_thick.slice](#) (motor mount, battery holder, spinner)

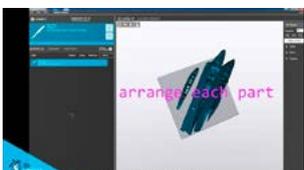


AND... please give a look to [VideoGuides](#):

[video CURA slicer setting](#)



[video CMatterControl slicer setting](#)



4. Print it

Save generated Gcodes and insert SD card to your printer, prepare your printer and start printing, we prefer to use SD than direct connection via USB Note: ABS filament is not suitable for this...

Scaling the model will lead to unusable result!

[video guide about printing](#)

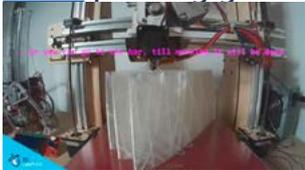
you will need: PLA filament - good quality and strong PLA (we need good layer bonding)

Strong hair spray (or your favorite adhesive bed surface)

Razor blade

AND... please give a look to VideoGuides:

[video printing guide](#)



Main parts weight list:



Basic Typs and Advices

Plese Experiment with your [extrusion multiplier](#)...

Also [HotEnd temperature](#) is very important for strong result, please try increase temperature to find the best value ([200 up to 260 celsius](#))

Turn [OFF cooling fan](#) for better layer adhesion ([HE fan of course ON](#)) we dont need it for our thin wall printing...

We try lot of filaments and so far PLA is still the best for our models (2016).

You can try aslo PETG and PC-max from polymaker is very promising filament.

HEATED BED is very recommended, 60-70celsius (print without warping ends)

Looks like any standard quality PLA is OK for our planes, BUT it always depends on combination PLA vs. Extruder vs. HotEnd.

We find that some color of filament has lower layer adhesion also.

Nowadays there is lot of 3dprinters on the market, very most of them is OK for printing our aircrafts (specific thin wall printing...) suficient volume, heated bed, 0.4mm nozzle.

Please give a look to Printing Guide:



printing guide rev. 2016/06



Some Tips and Advices for airplane printing

[Printing fully printable 3dLabPrint Airplanes](#)

... If we want print aircraft there always be demand on low weight and enough strenght, with Thin Wall Printing we can achieve it ...

5. Assembling parts and installing landing gear

5.1 Wing assembling

Glue wing parts with CA glue together, use activator and install ailerons...

[See video guide #13](#)

(the same procedure as 109T version)

you will need: [CA Glue - medium](#) or similar medium viscosity CA glue

[Activator for CA Glue](#) or similar, but not-mechanical is better

Steel pushrod, diameter 1.2mm and 3mm

Pliers

Clamp

Hammer

Dremel or any hand tool

printed LG pattern

Firelighter

2x main Wheel (light foam wheel 50-75mm/20mm)

1x tail Wheel (light foam wheel 20-30mm/8mm)

[4xLanding Gear Wheel Stop 8x3.1mm](#)