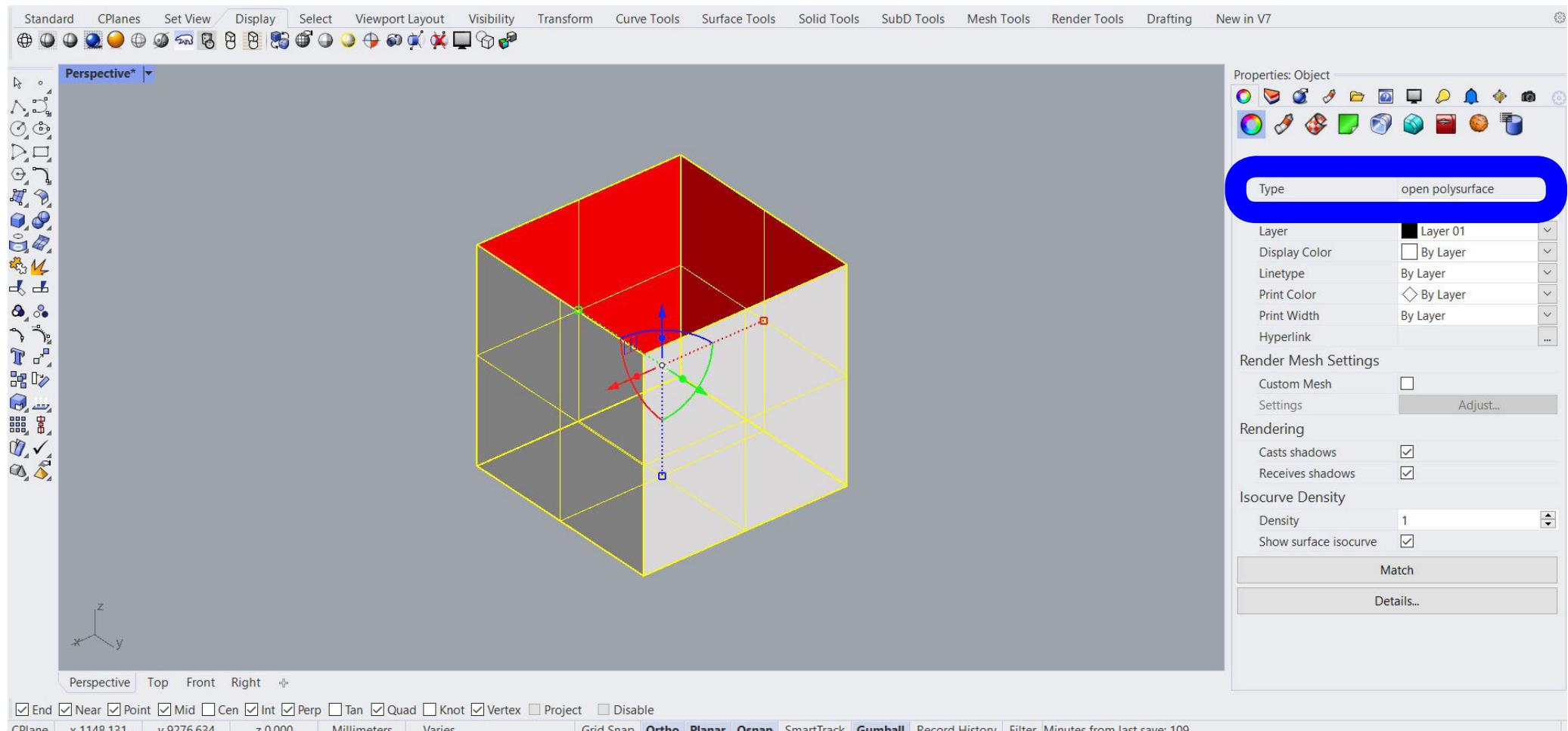


3D print filamentom
FDM (fused deposition modeling)
FAD STU

Geometria modelu pre 3D tlač by mala byť pevným (solid) objektom - mala by byť uzavretá
Geometry of the model for 3D printing should be solid - it should be enclosed.

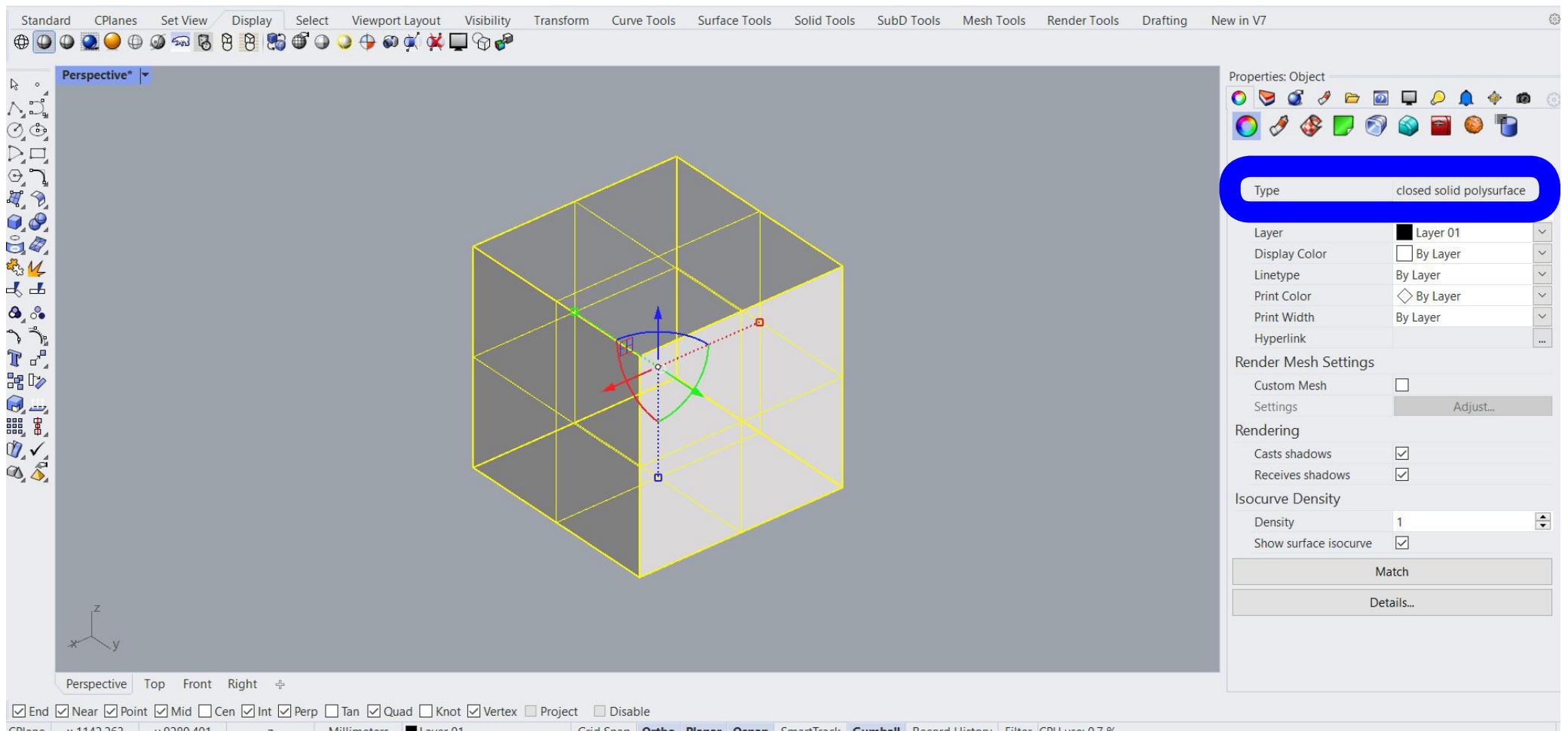


Príklad neuzavretej geometrie, kde cez dieru vidíme do vnútra.

Example of open geometry. We can see inside of the object.

Geometria modelu pre 3D tlač by mala byť pevným (solid) objektom - mala by byť uzavretá

Geometry of the model for 3D printing should be solid - it should be enclosed.

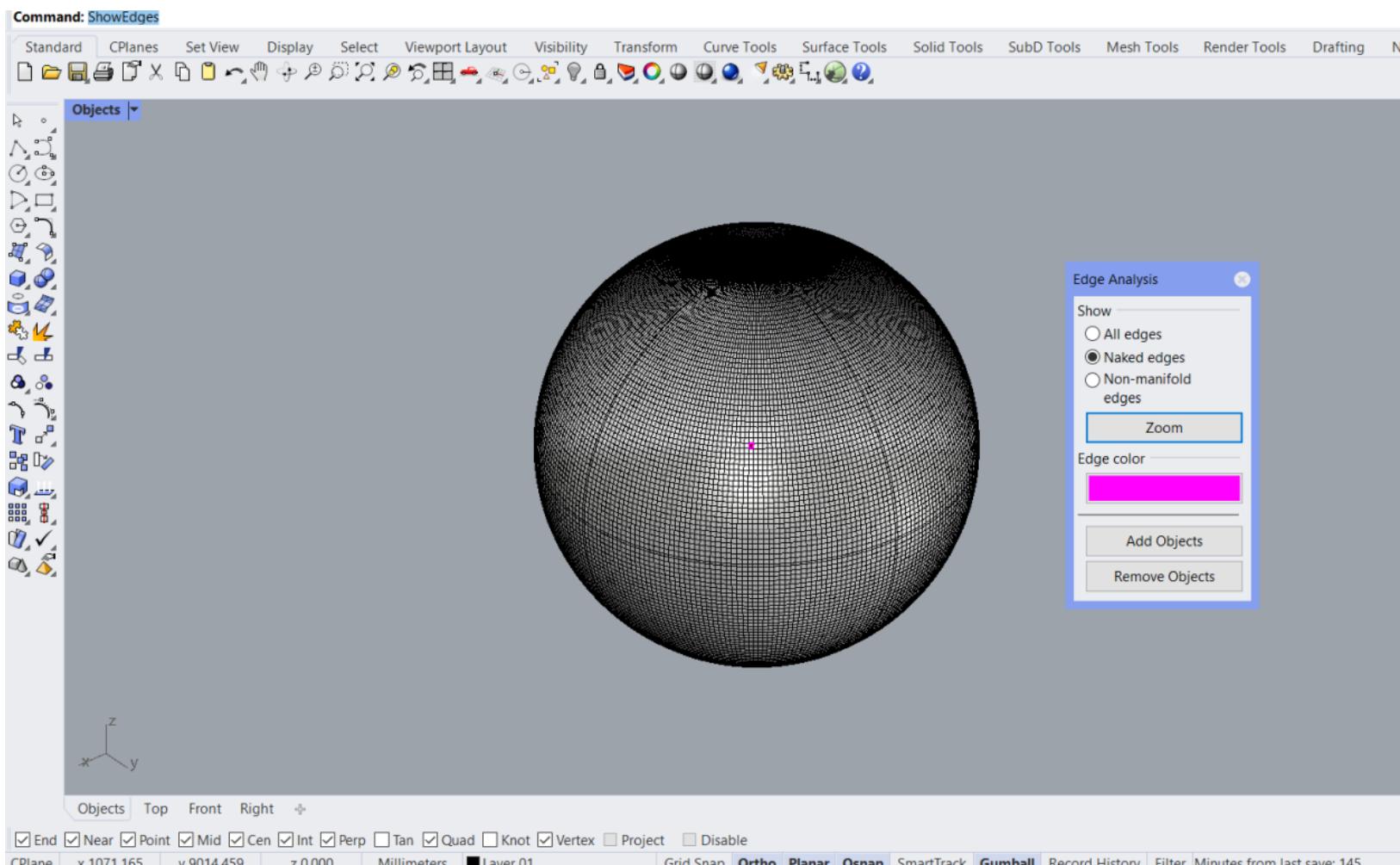


Príklad uzavretej geometrie. Rhinoceros v Properties píše či je geometria uzavretá, alebo otvorená.
Geometrie, ktoré nie sú pevné (solid) a nie je možné ich tlačiť: point, line, curve, surface.

Example of closed geometry. Rhinoceros in the Properties indicates, whether the geometry is open or closed.
Geometries, which are not solid, are not possible to print. .g. point, line, curve, surface

Nájdenie dier v objekte

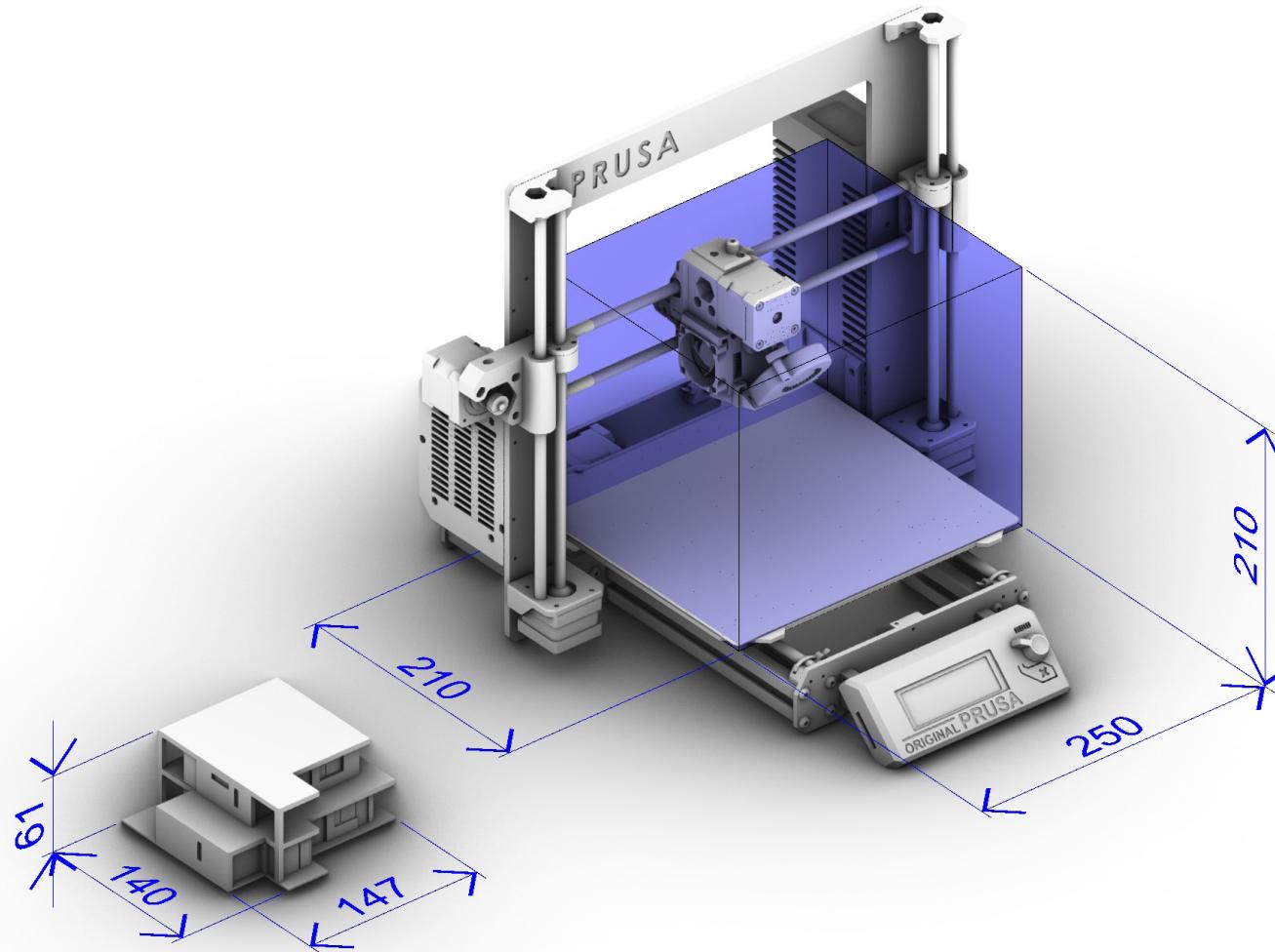
Looking for the holes in the object



Pri objektoch s veľkým počtom stien, niekedy nevieme nájsť dielu v objekte. Použitím príkazu [ShowEdges](#) sa po výbere objektu a možnosti [Naked edges](#) na ružovo vysvetlia hrany okolo diery na objekte.

It is not easy to find holes in the objects with many faces. With the command [ShowEdges](#) after selecting the object and the option [Naked edges](#), the edges around the hole will be highlighted with pink color.

Objekt sa musí vymestíť do tlačiteľného objemu
Object has to fit into the printable volume of the printer

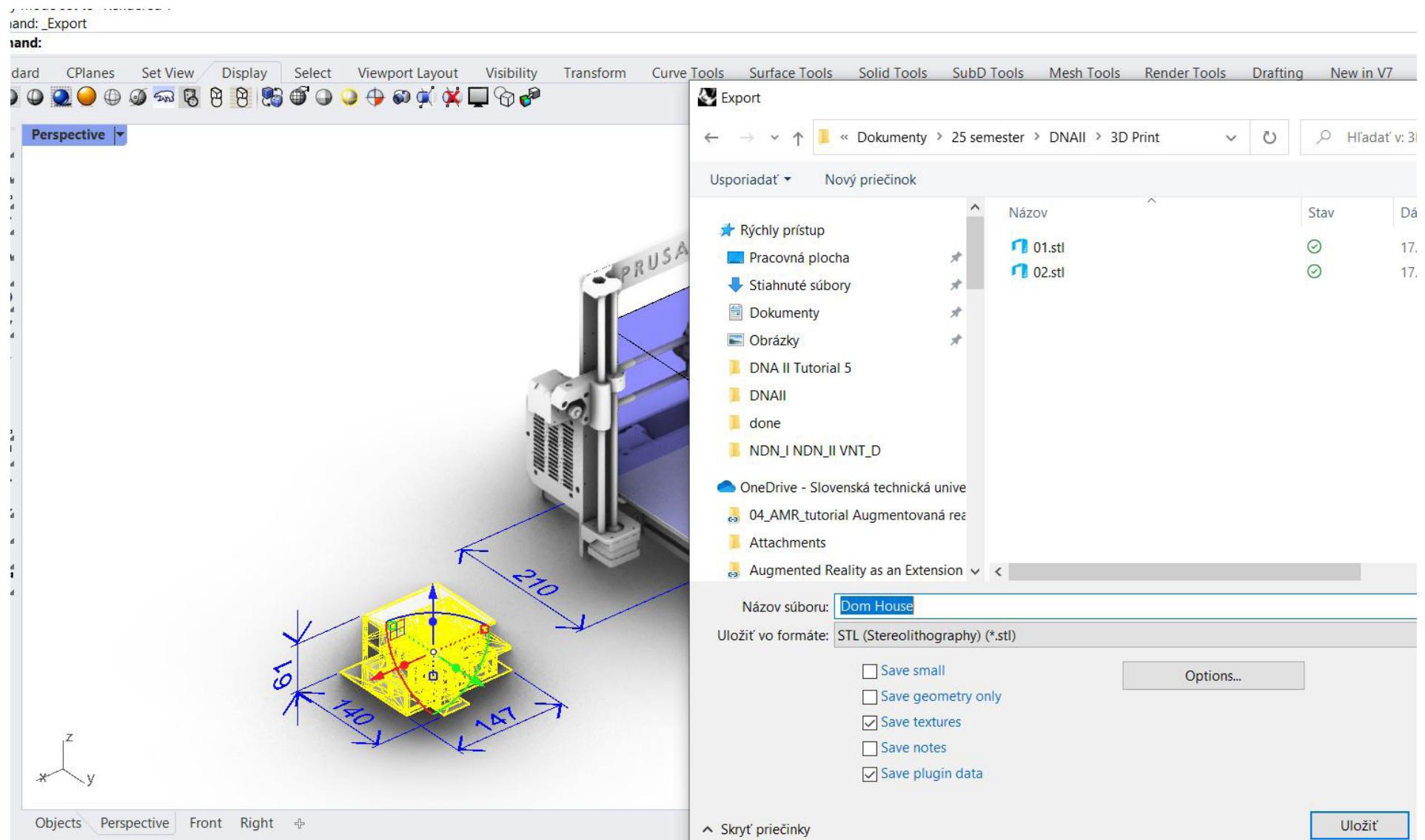


Veľkosť modelu a objemu 3D tlačiarne. Model sa musí vymestíť do daného objemu. Snažte sa neísť príliš k okrajom tlače.

Size of the model and the printable volume of the printer. Model has to fit into the volume. Do not get close to the borders of the printable volume.

Export modelu do STL formátu

Export of the model to STL format



Oprava modelu v programe 3D Builder

Repairing of the model in the 3D Builder software

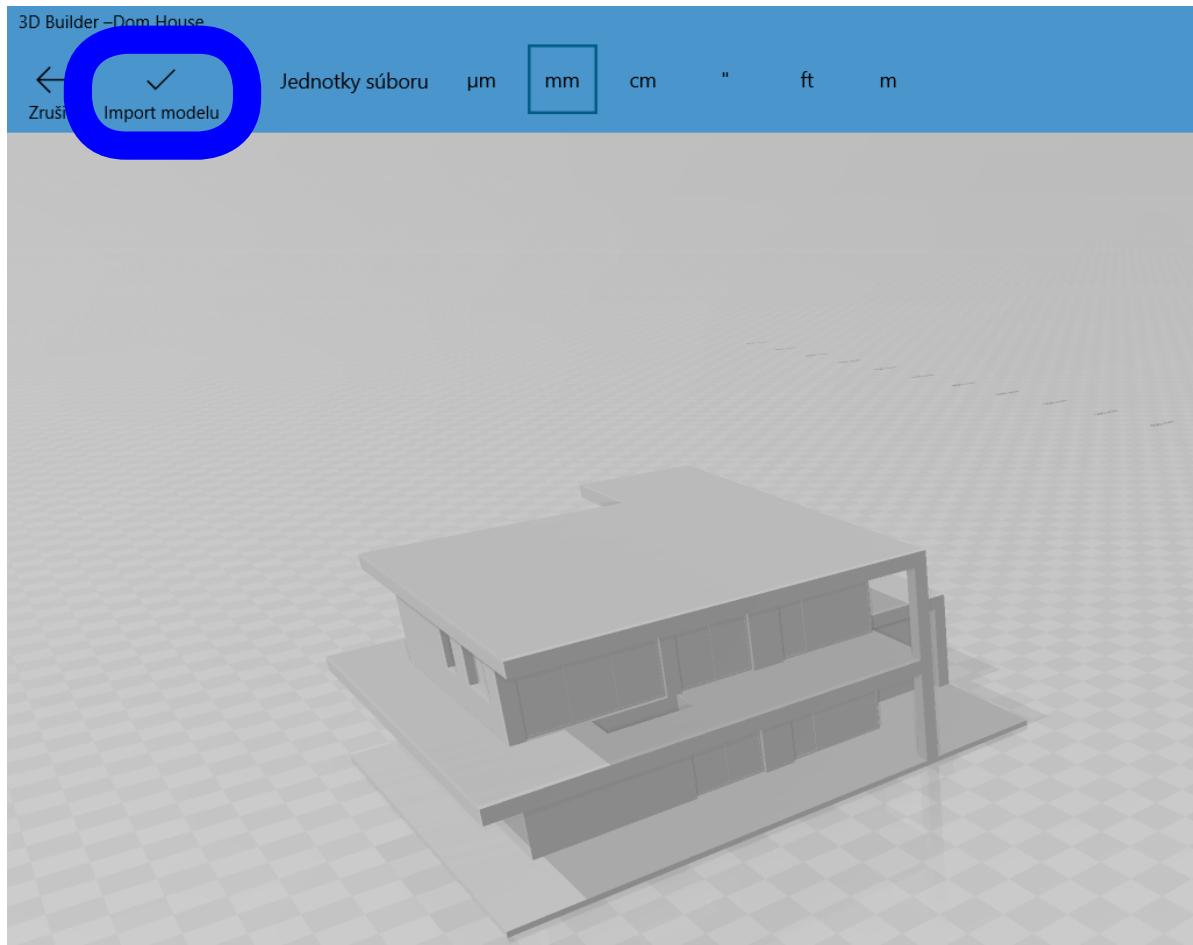
The screenshot shows the Microsoft Store interface. In the search bar at the top right, the text "3D builder" is typed. On the left sidebar, there are icons for "Microsoft Store", "Hľadanie" (Search), "Aplikácie" (Applications), and "Hranie hier" (Games). Below the search bar, the results for "3D builder" are displayed. The first result is the "3D Builder" application, which is categorized under "Aplikácie | Fotografie a videá". It has a rating of 4,7 stars from 43 reviews. A PEGI 3 rating badge is also present. A brief description below the app icon states: "Zobrazujte, vytvárajte a prispôsobujte si 3D objekty pomocou aplikácie 3D Builder." The main title "3D builder" is highlighted in bold black text.

3D Builder je voľne dostupný softvér pre 3D tlač na MS Store

3D Builder is a free software for 3D printing, available on MS Store

Oprava modelu v programe 3D Builder

Repairing of the model in the 3D Builder software

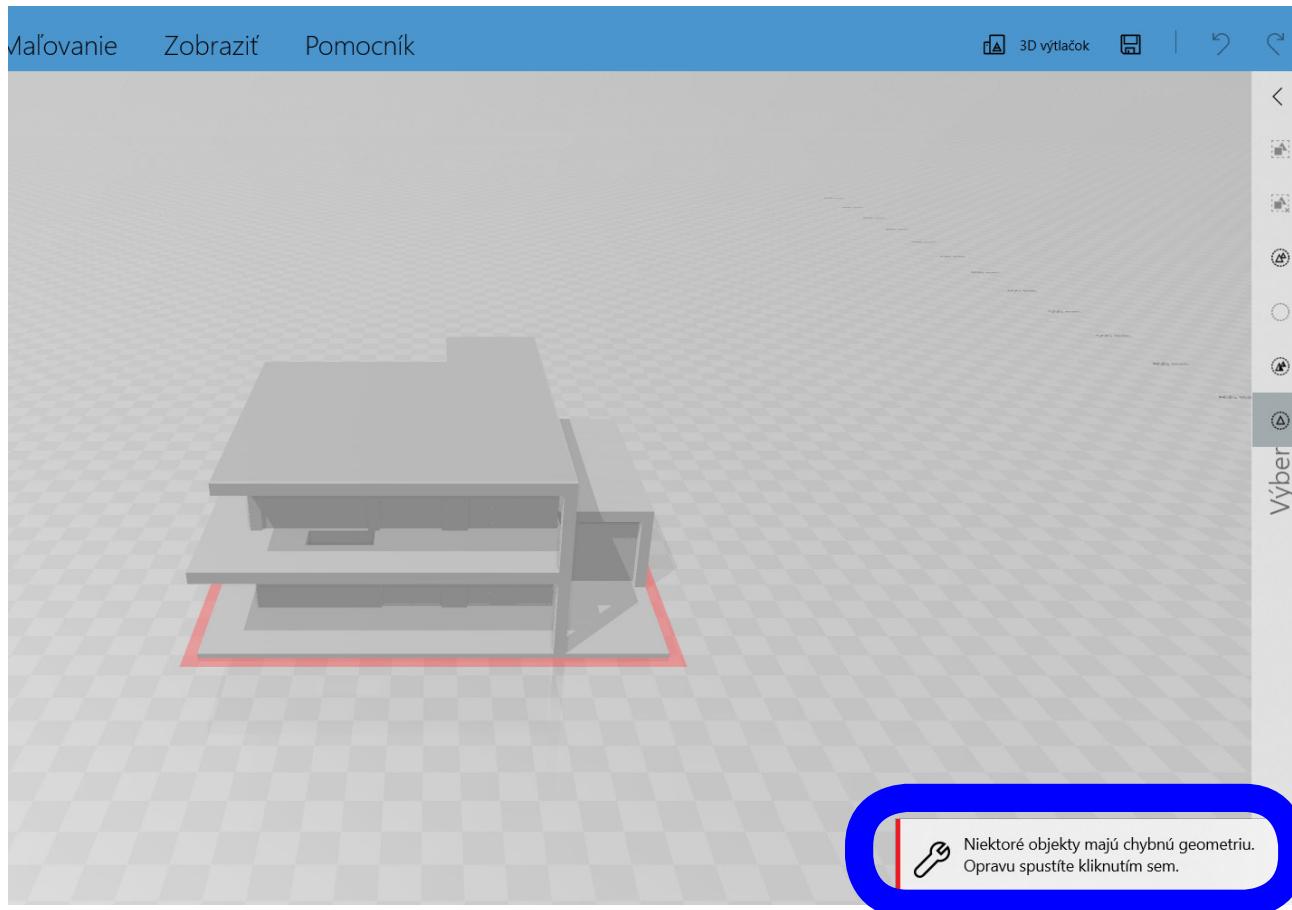


Otvorte exportnuté STL v softvéri 3D Builder a stlačte [Import modelu](#)

Open exported STL in the software 3D Builder and click on [Import of the model](#)

Oprava modelu v programe 3D Builder

Repairing of the model in the 3D Builder software

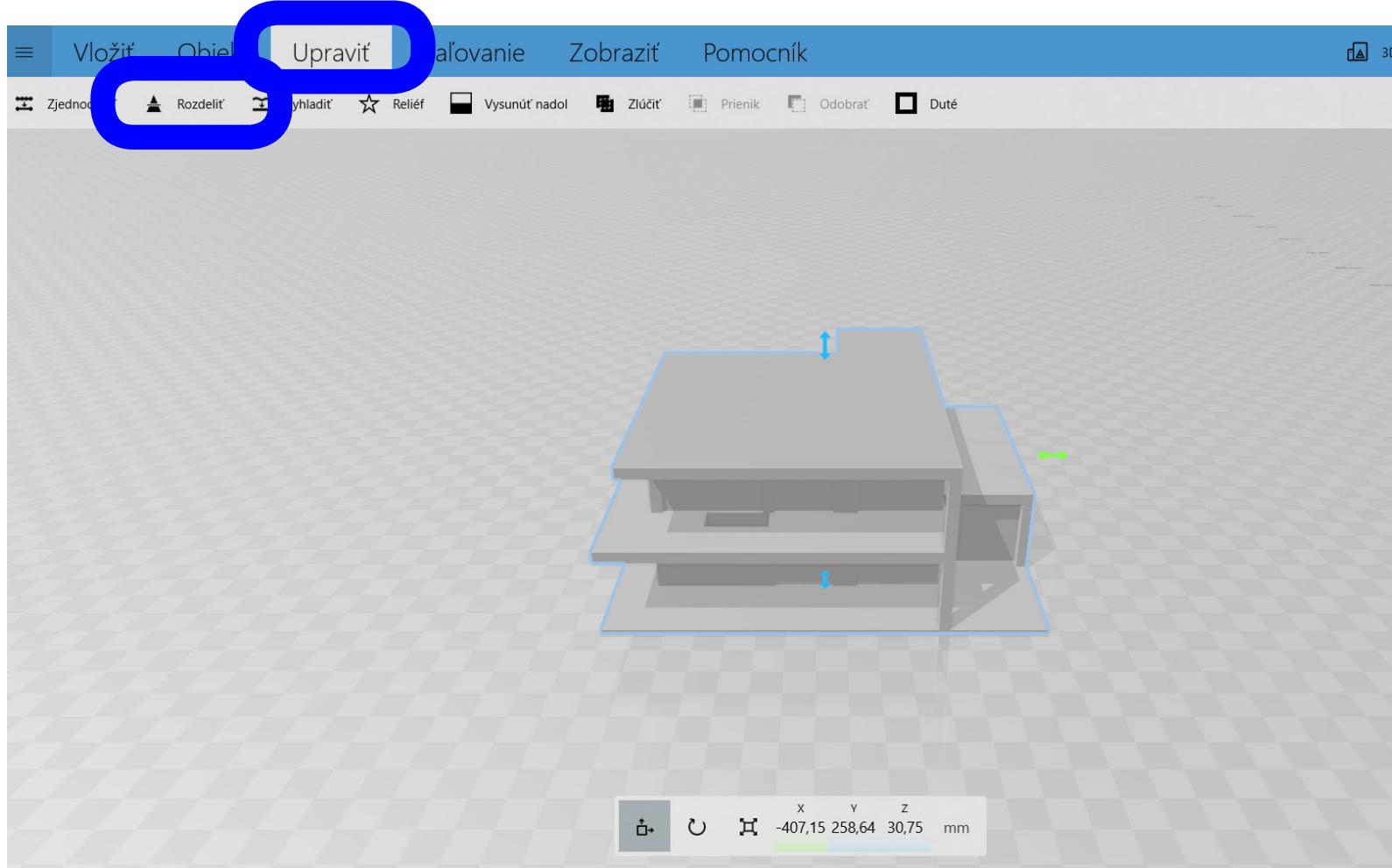


Po importnutí program automaticky nájde problémy modelu a pokúsi sa ich opraviť.

After importing of the model the software automatically finds problems of the geometry and repairs them.

Oprava modelu v programe 3D Builder

Repairing of the model in the 3D Builder software

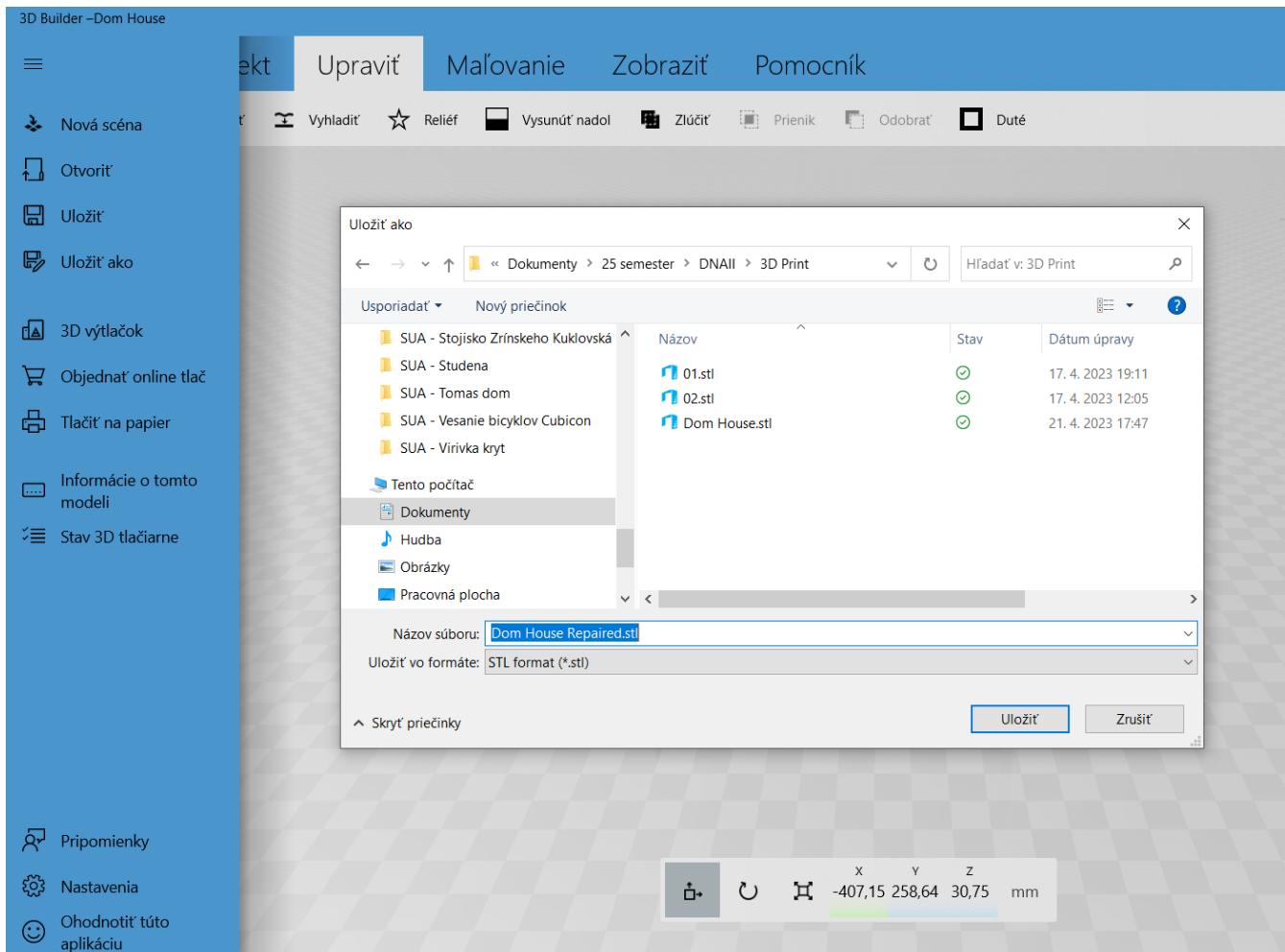


3D Builder umožnuje aj jednoduché úpravy modelu ako jeho rozdelenie, alebo mierku.

3D Builder allows simple editation as its splitting or scaling.

Oprava modelu v programe 3D Builder

Repairing of the model in the 3D Builder software

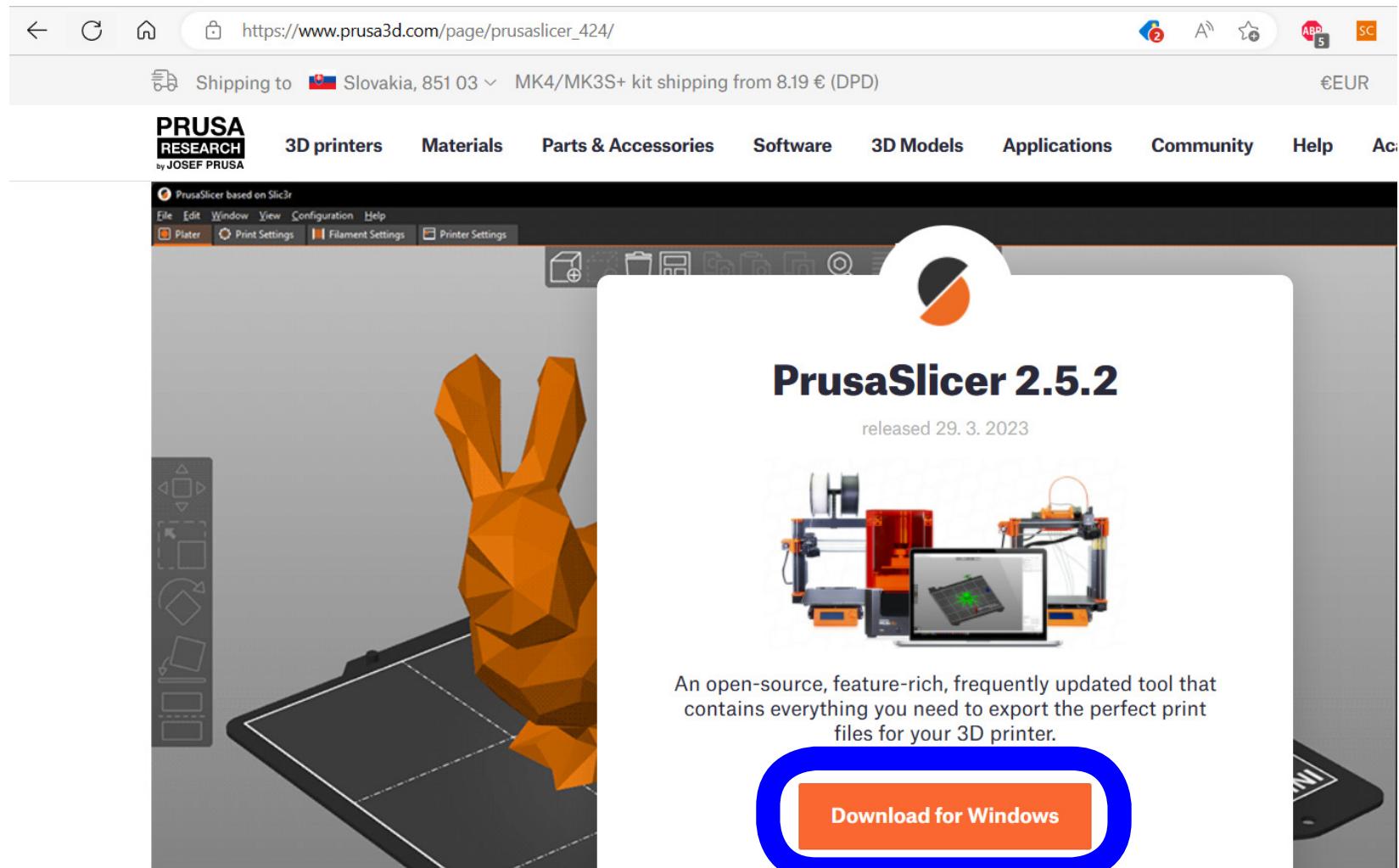


Po oprave a úpravách uložte súbor ako STL

After repairing and editing save the file as STL

Export súboru pre 3D tlač v Prusa Slicer

Export of the file for 3D printing in the Prusa Slicer

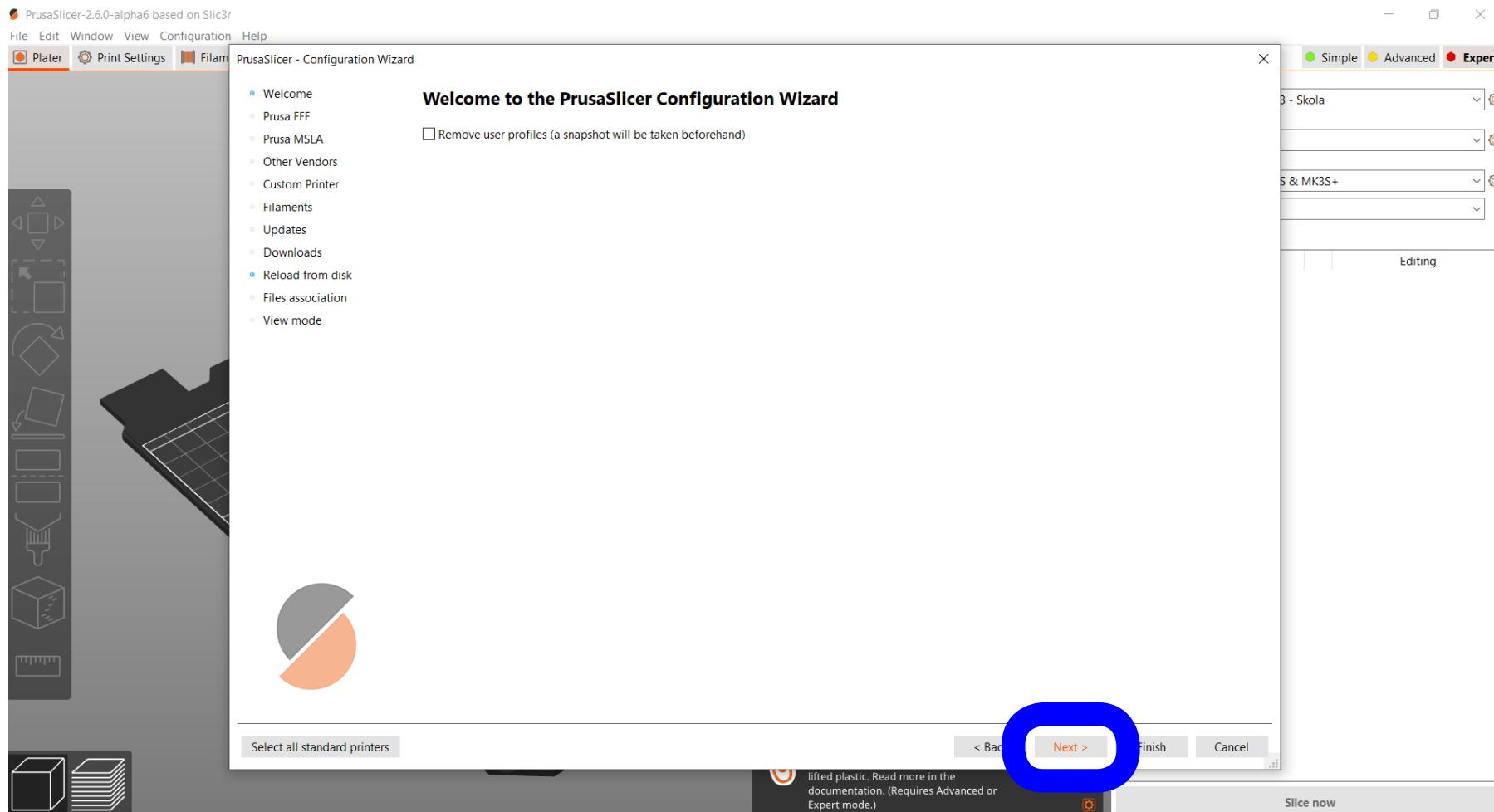


Stiahnite si program Prusa Slicer z https://www.prusa3d.com/page/prusaslicer_424/

Download software Prusa Slicer from https://www.prusa3d.com/page/prusaslicer_424/

Export súboru pre 3D tlač v Prusa Slicer

Export of the file for 3D printing in the Prusa Slicer



Po prvom otvorení programu vás uvítá Configuration Wizard

After first opening of the software the Configuration Wizard awaits you.

Export súboru pre 3D tlač v Prusa Slicer

Export of the file for 3D printing in the Prusa Slicer

PrusaSlicer - Configuration Wizard

• Welcome
• Prusa FFF
• Prusa MSLA
• Other Vendors
• Custom Printer
• Filaments
• Updates
• Downloads
• Reload from disk
• Files association
• View mode

Alternate nozzles:
 0.25 mm nozzle
 0.6 mm nozzle
 0.8 mm nozzle

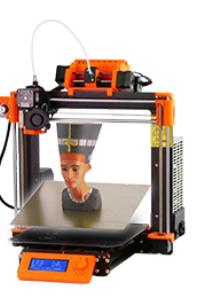
MK3 Family

All standard All None


Original Prusa i3 MK3 & MK3S+
 0.4 mm nozzle
 0.25 mm nozzle
 0.6 mm nozzle
 0.8 mm nozzle


Original Prusa i3 MK3
 0.4 mm nozzle
 0.25 mm nozzle
 0.6 mm nozzle
 0.8 mm nozzle


Original Prusa i3 MK3S & MK3S+ MMU2S
 0.4 mm nozzle
 0.25 mm nozzle
 0.6 mm nozzle
 0.8 mm nozzle


Original Prusa i3 MK3 MMU2
 0.4 mm nozzle
 0.25 mm nozzle
 0.6 mm nozzle
 0.8 mm nozzle

MK2.5 Family

All standard All None






Select all standard printers

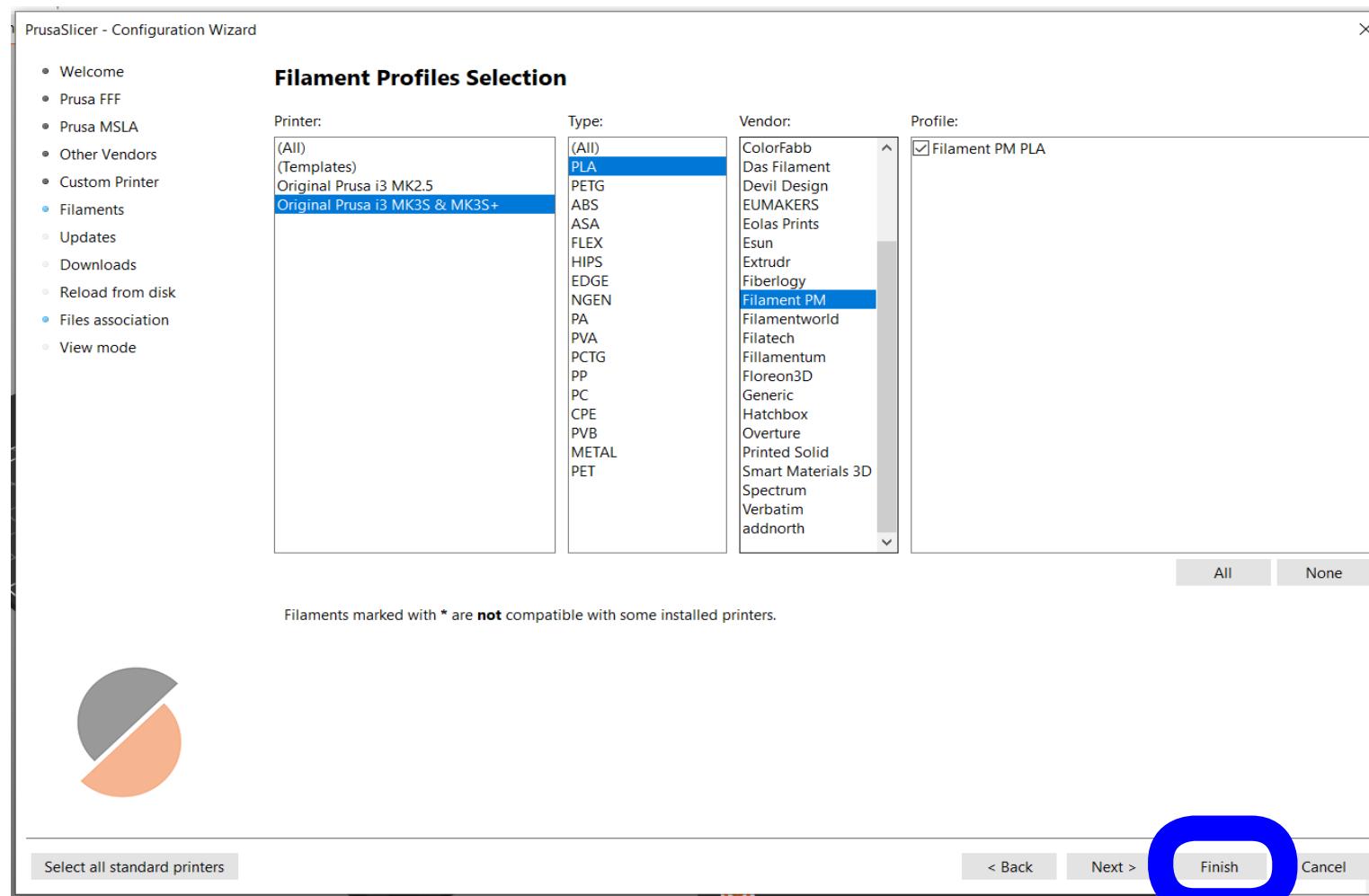
< Back Next > Finish Cancel

Vyberte správnu tlačiareň

Choose the correct printer

Export súboru pre 3D tlač v Prusa Slicer

Export of the file for 3D printing in the Prusa Slicer

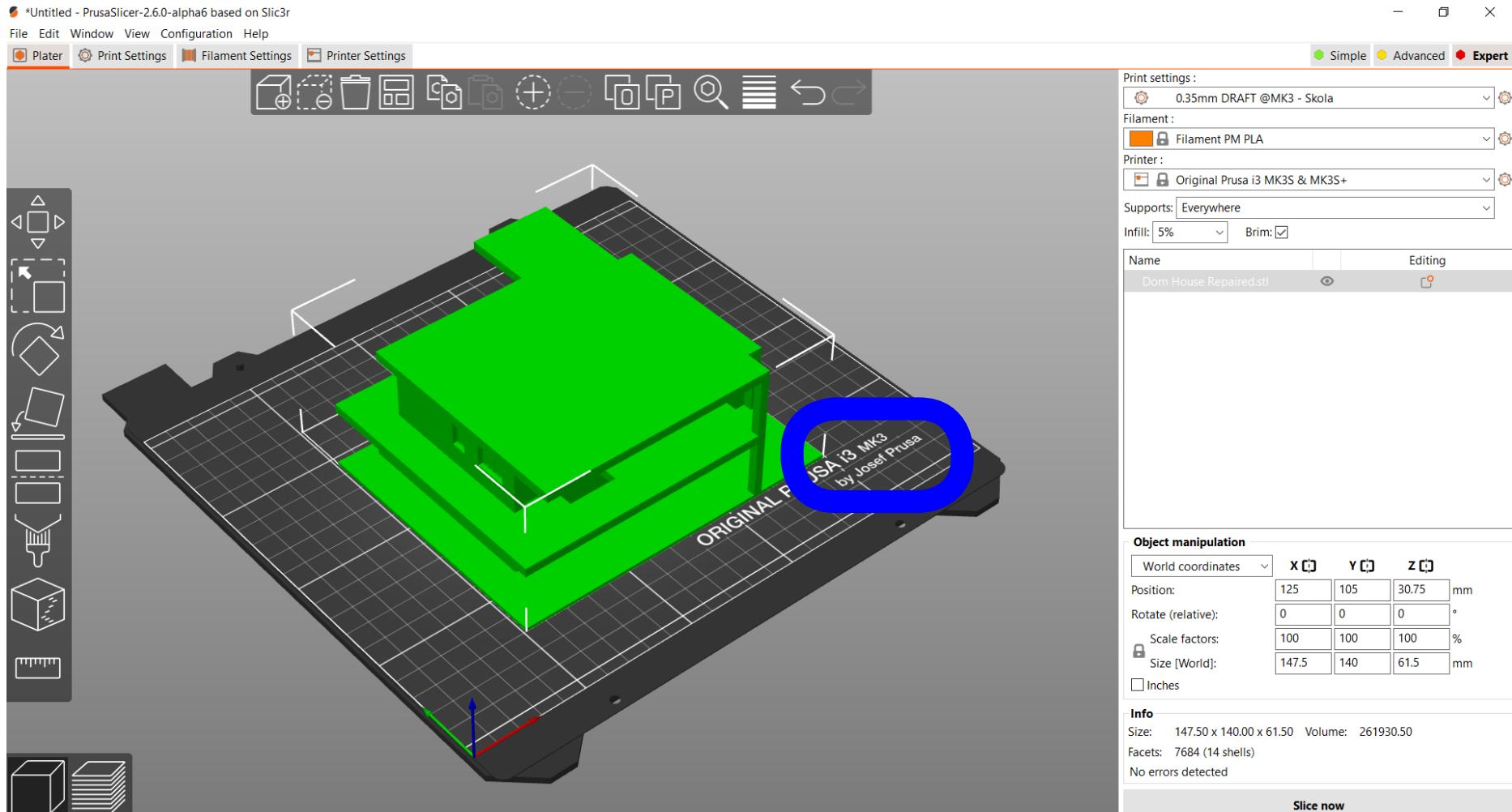


Vyberte správny filament. Odporúčam kúpiť Filament PLA od Plasty Mladeč (Filament PM)

Choose the correct filament. I recommend to buy and use Filament PLA from Plasty Mladeč
(Filament PM)

Export súboru pre 3D tlač v Prusa Slicer

Export of the file for 3D printing in the Prusa Slicer

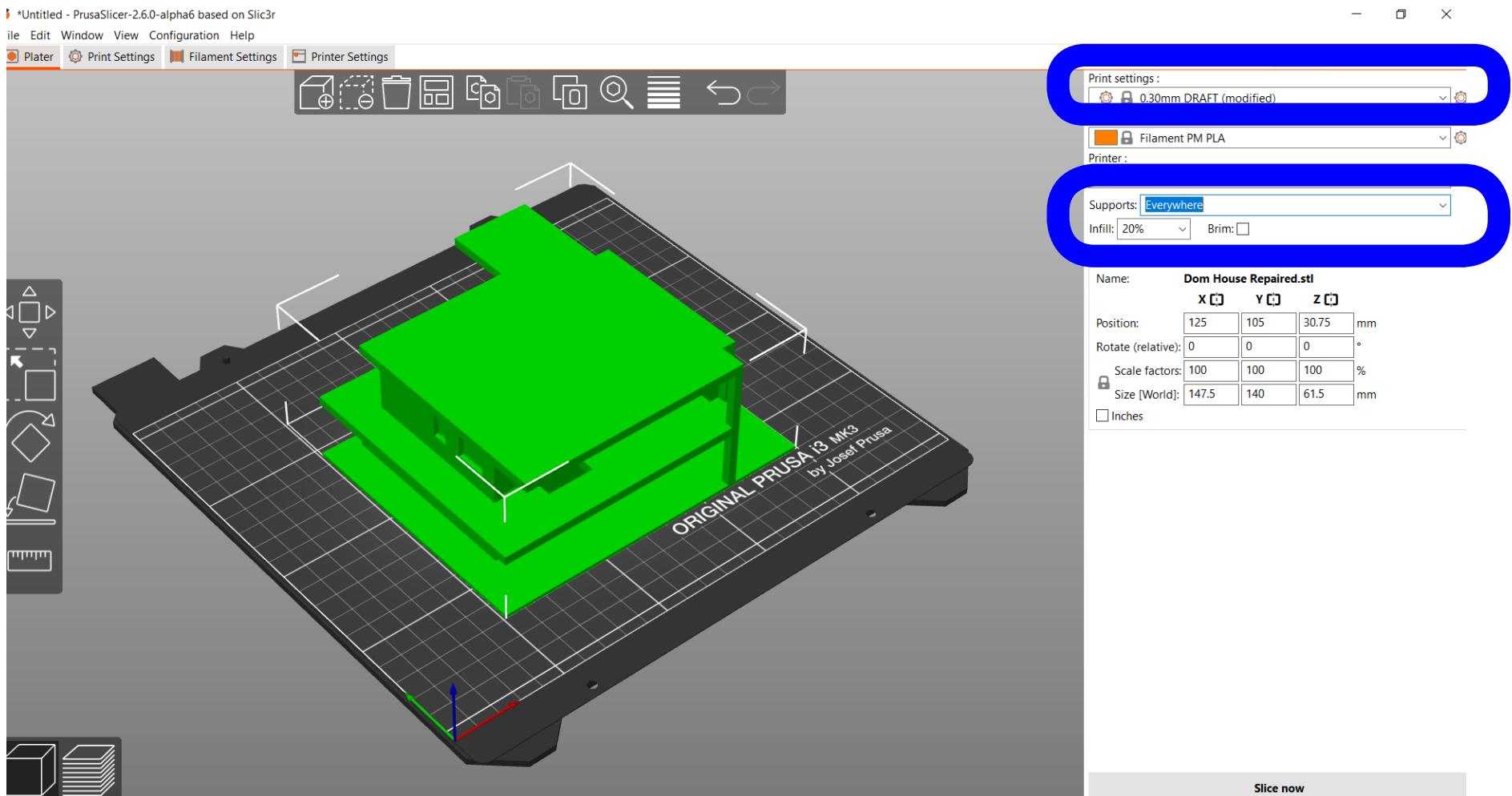


Po nastavení by ste mali mať správne označenie tlačiteľnej plochy i3 MK3
Importnite opravené STL do Slicera

After configuration you should have displayed the correct printing area i3 MK3
Import repaired STL into Slicer

Export súboru pre 3D tlač v Prusa Slicer

Export of the file for 3D printing in the Prusa Slicer

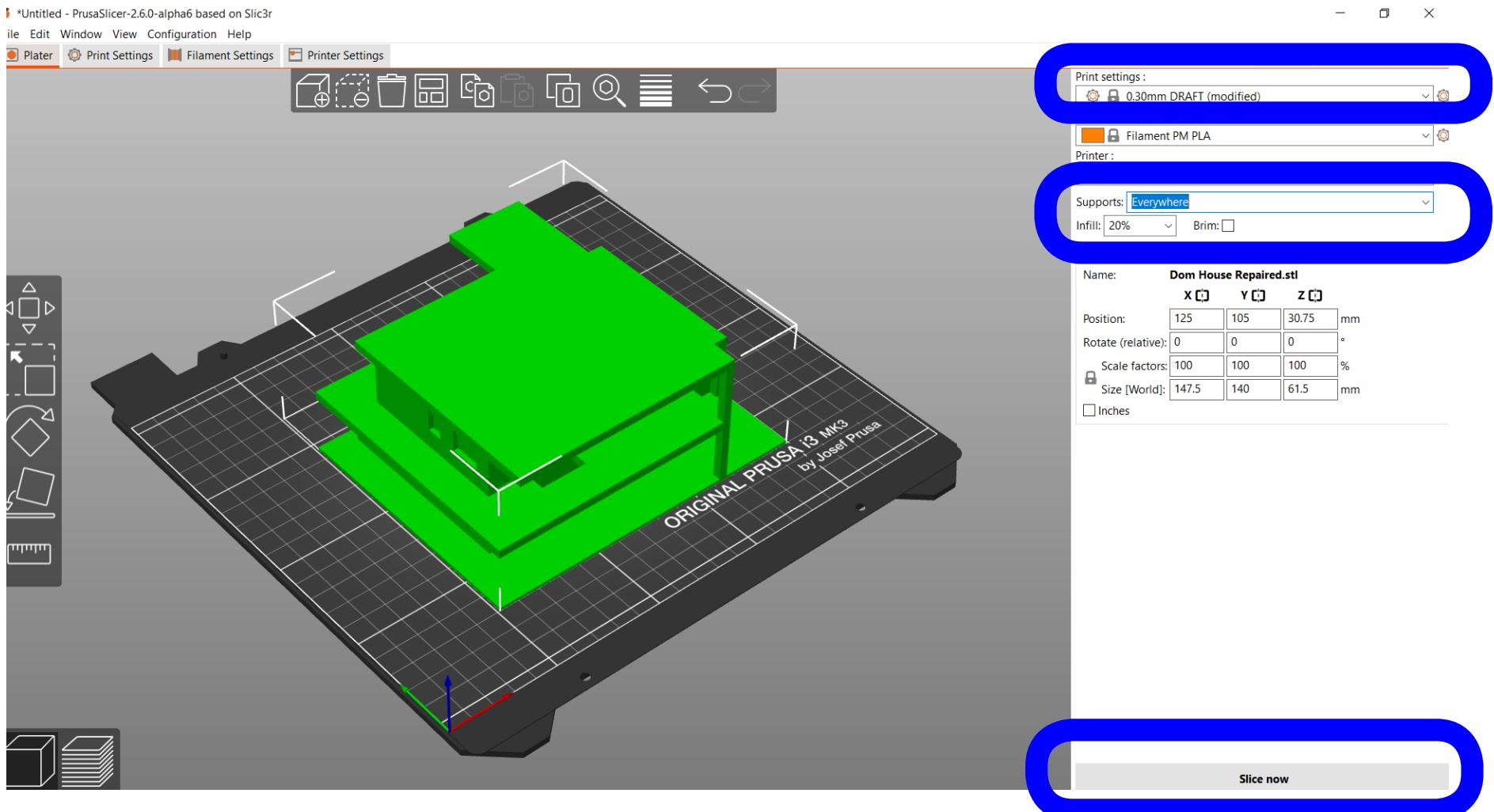


Nastavte Print settings - väčšinou úplne postačuje DRAFT. Ovplyvňuje to čas tlače. Kvalitnejšie tlačí dlhšie. Zapnite Supports: Everywhere.

Set the Printer settings - usually DRAFT is enough. This settings impacts the time of the printing. More quality means more time. Turn on Supports: Everywhere.

Export súboru pre 3D tlač v Prusa Slicer

Export of the file for 3D printing in the Prusa Slicer

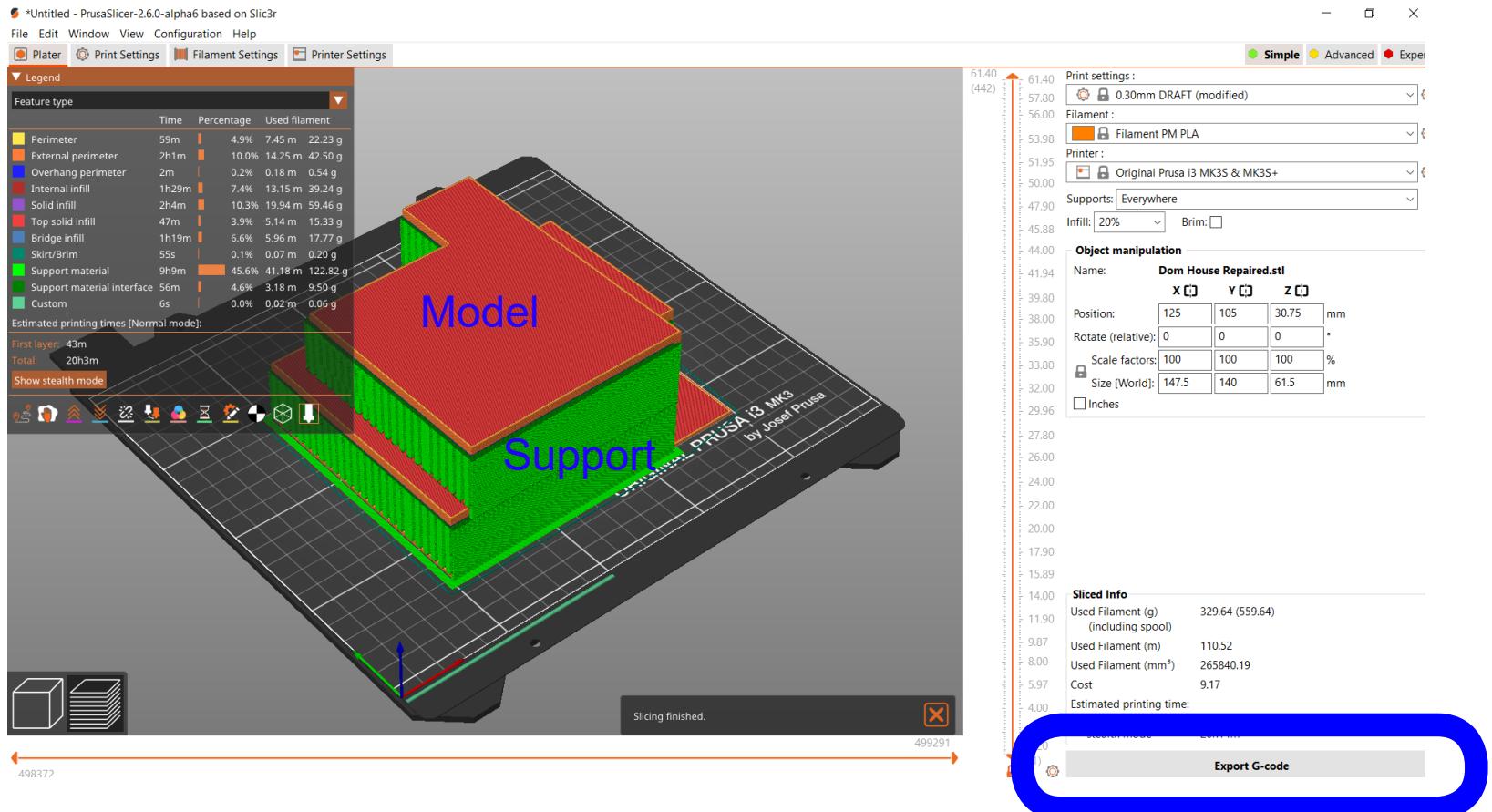


Nastavte Infill - vnútornú výplň. Viac percent znamená pevnejší model ale dlhšia doba tlače.
Väčšinou 5% stačí. Potom kliknite na Slice now.

Set the Infill of the model. This setting impacts the time of the printing. More percent means less fragile model but more time of the printing. Usually 5% is enough. Then click on Slice now.

Export súboru pre 3D tlač v Prusa Slicer

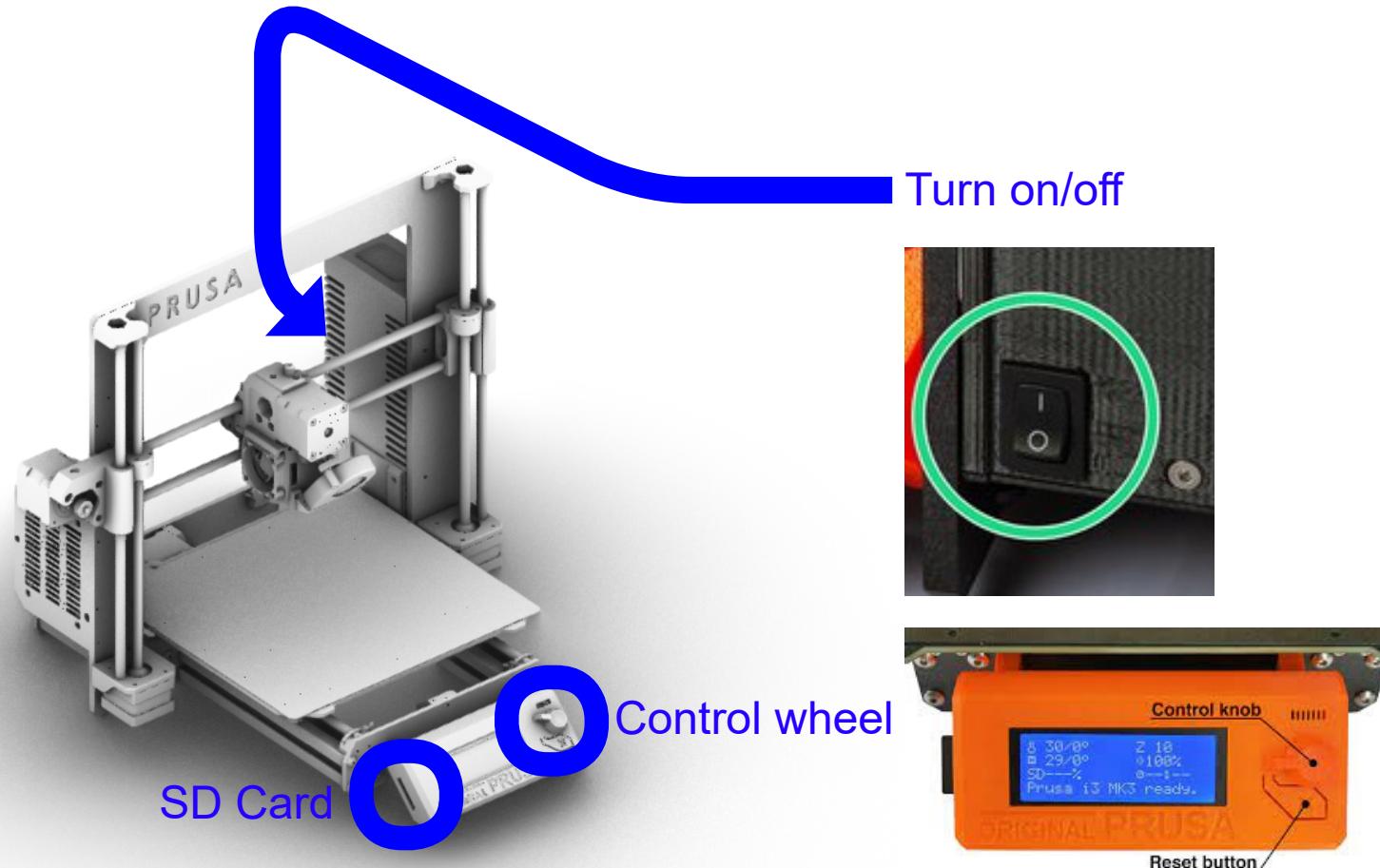
Export of the file for 3D printing in the Prusa Slicer



Vizualizácia tlačenia. Slicer informuje o dobe tlače. Na obrázku je pri dlhá doba tlače. Odporúčam tlačiť časti na 4-5 hodín. Dlhší čas znamená väčšia pravdepodobnosť chýb a nedokončenia tlače. Po vygenerovaní Export G-code.

Visualisation of the printing. Slicer informs about time of the printing. On the image there is too long time of the printing. Recommendation is to print the parts only for 4-5 hours. Longer time means bigger probability of the errors and not ending the printing correctly.

3D tlač
3D printing



Exportnutý G-Code nakopírujte na SD kartu v tlačiarni. Stlačte ovládacie koliesko tlačiarne a jeho točením vyberte možnosť Print from SD. Točením vyberte váš G-Code a tlačte.

Exported G-Code copy to SD card in the printer. Press control wheel on the printer and its rotation choose the option Print from SD. By next rotation choose your G-Code and print.