

# ATSS – Glicer

additive technology software  
solution

[www.atssgroup.com](http://www.atssgroup.com)

# ATSS – additive solution

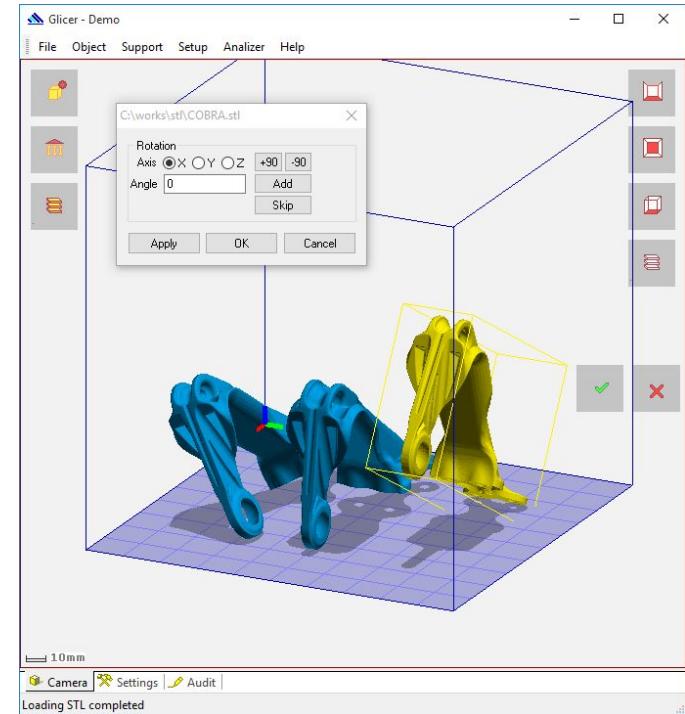
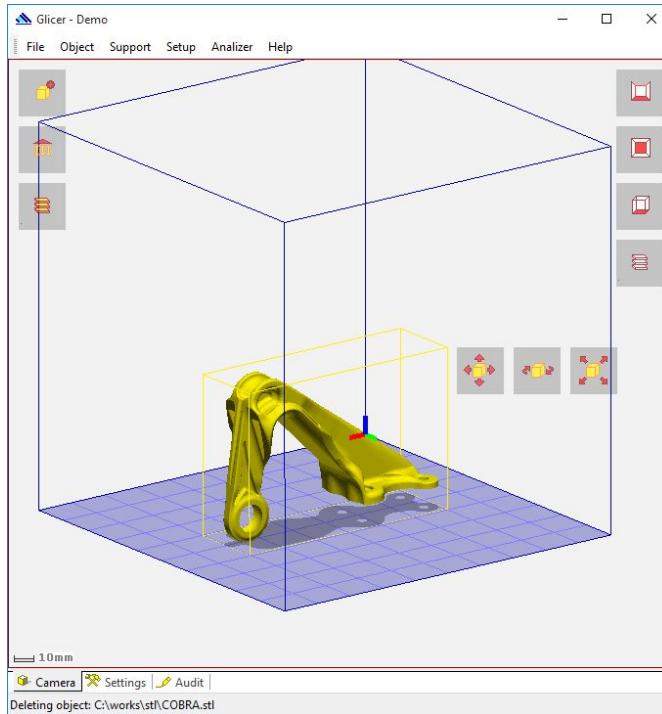
ATSS::Glicer – new application for SLS 3D printers

- Camera composing
- Support structures design
- GCode building
- Analyzing

# ATSS::Glicer – Composing

## Manual mode

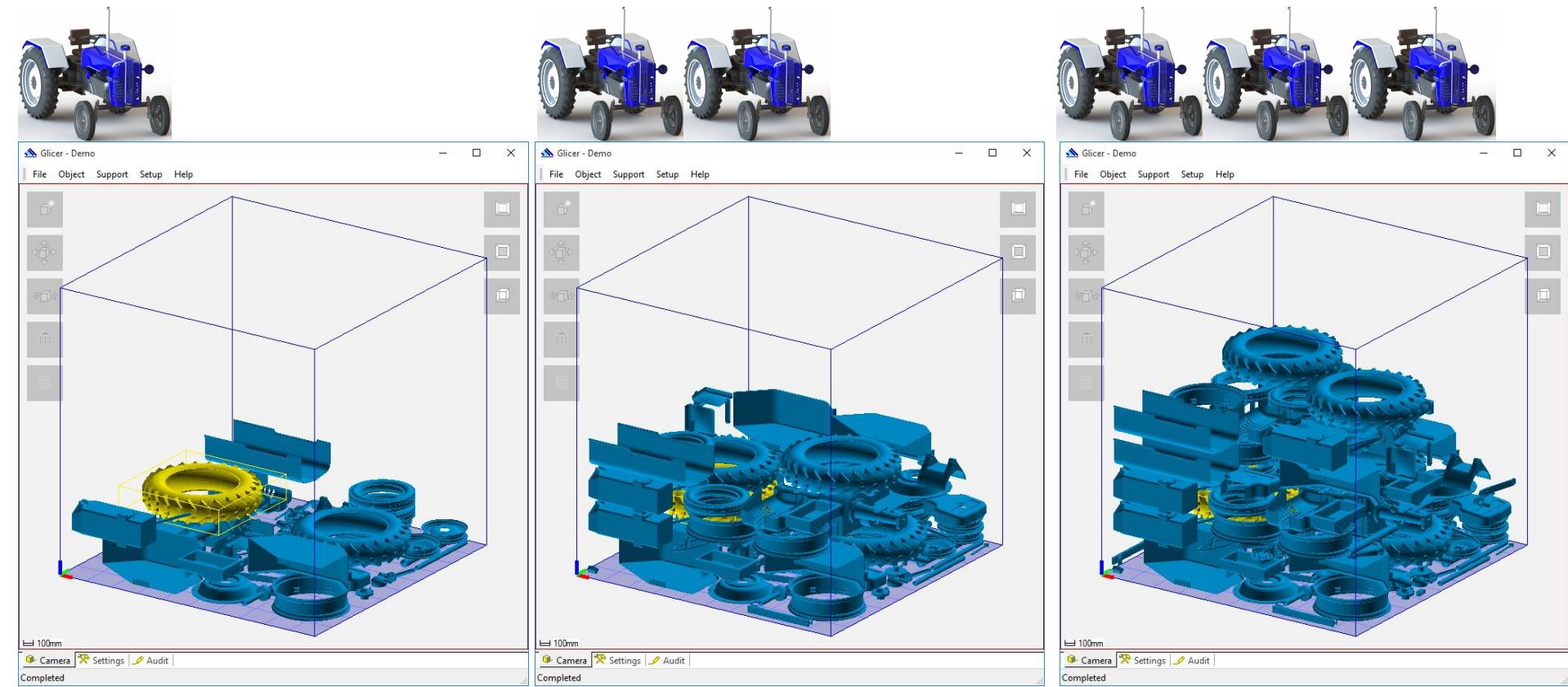
- rotation
- scaling
- moving



Model from grabcad.com

# ATSS::Glicer – Composing

Automatic mode – 3D composing

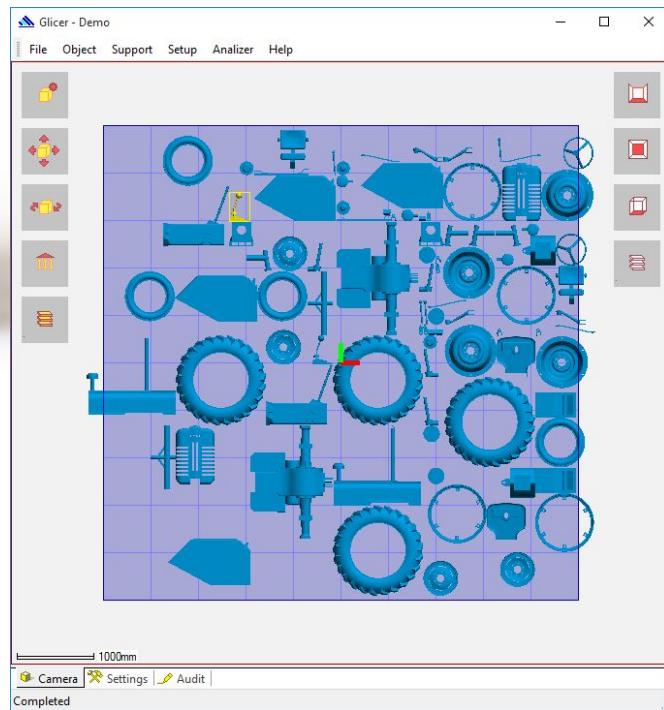


# ATSS::Glicer – Composing

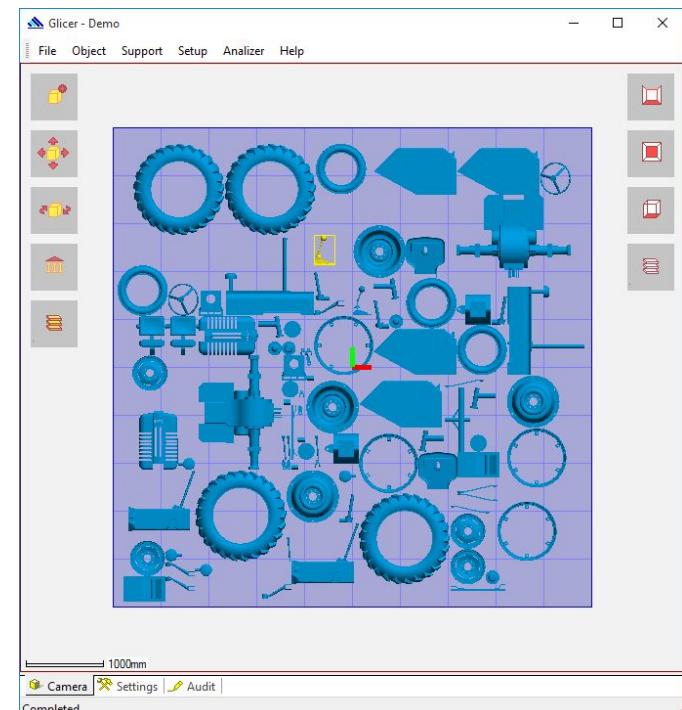
## Automatic mode – plane optimization



Model from grabcad.com



*Auto rotation off*

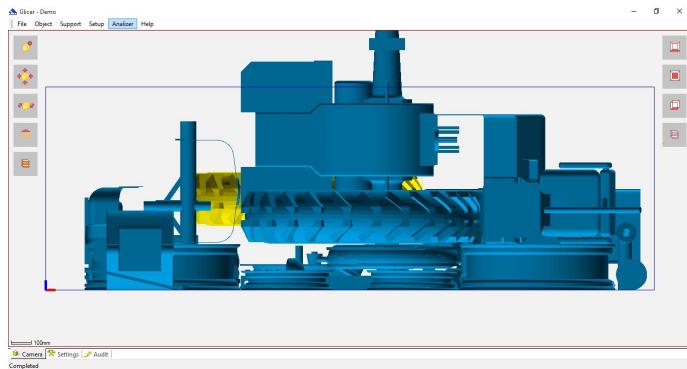


*Auto rotation on*

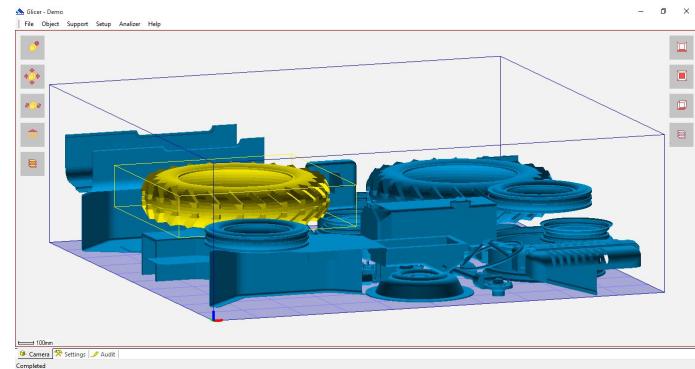
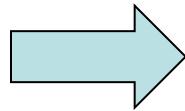
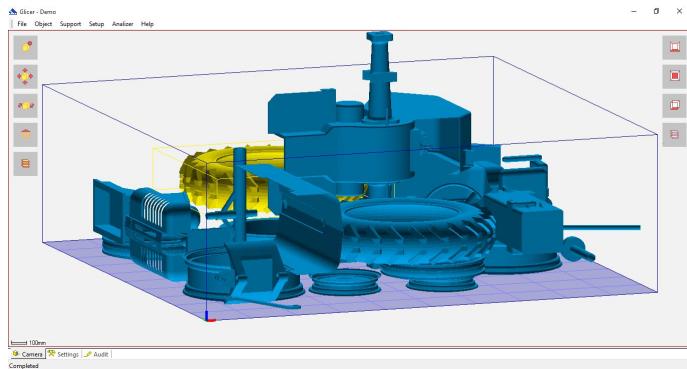
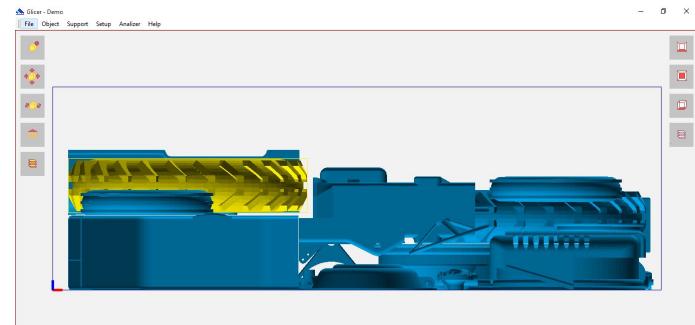
# ATSS::Glicer – Composing

## Automatic mode – height optimization

Height optimization off

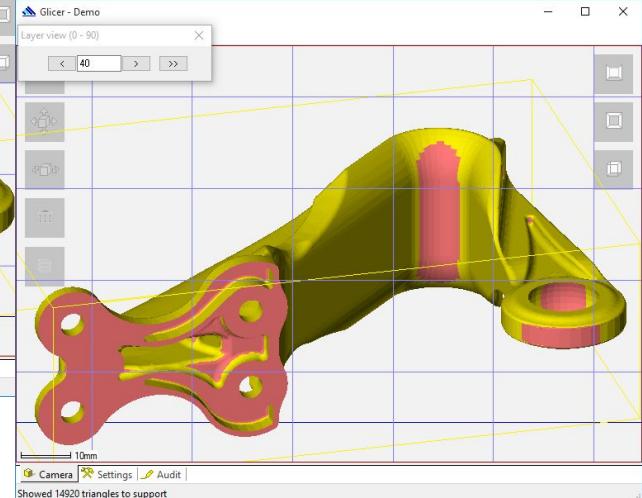
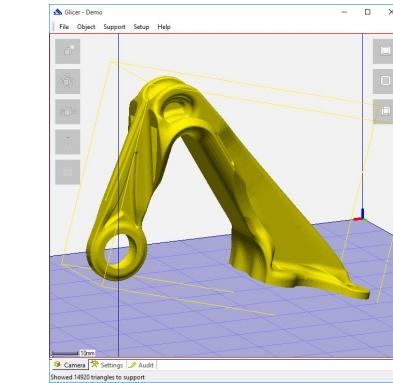
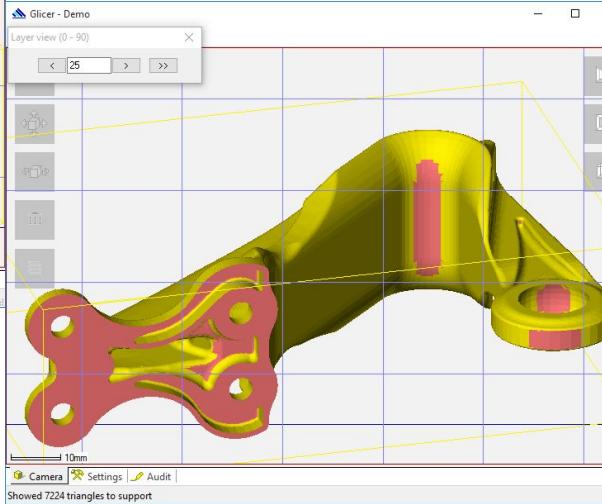
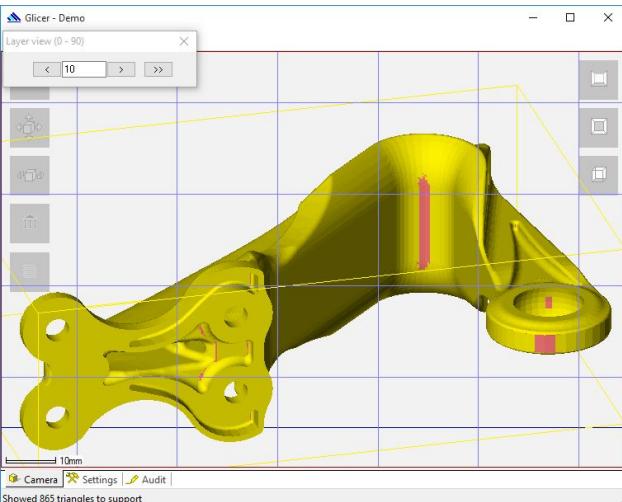


Height optimization on



# ATSS::Glicer – Supporting

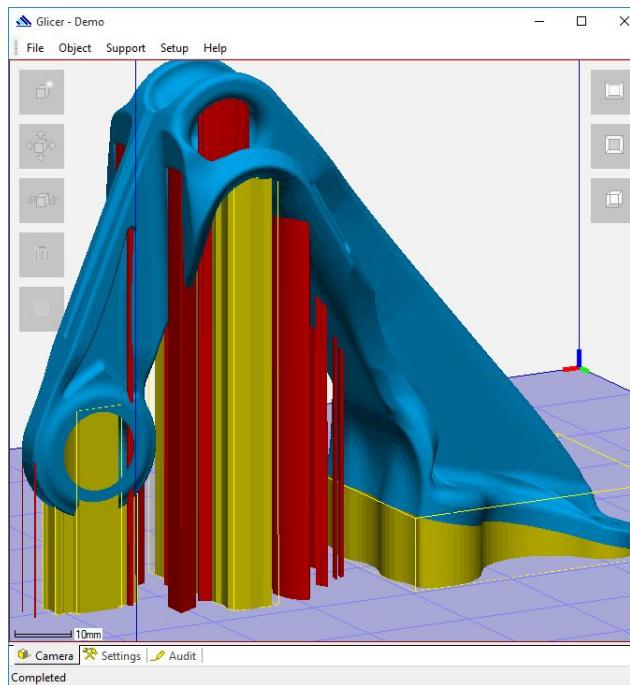
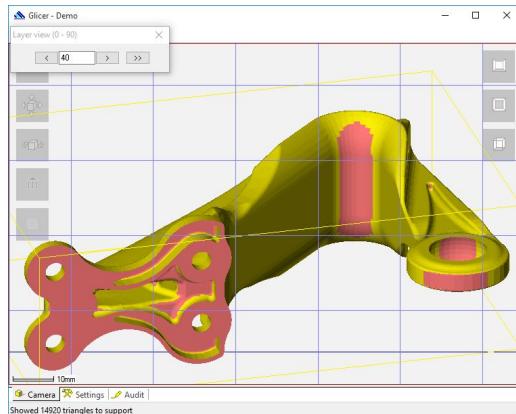
## Supported areas controlling



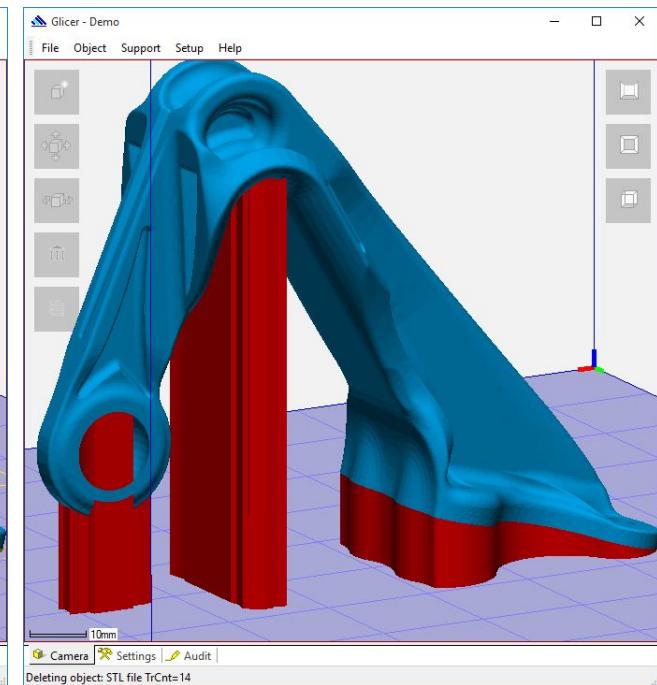
Model from [grabcad.com](https://www.grabcad.com)

# ATSS::Glicer – Supporting

## Support bodies building



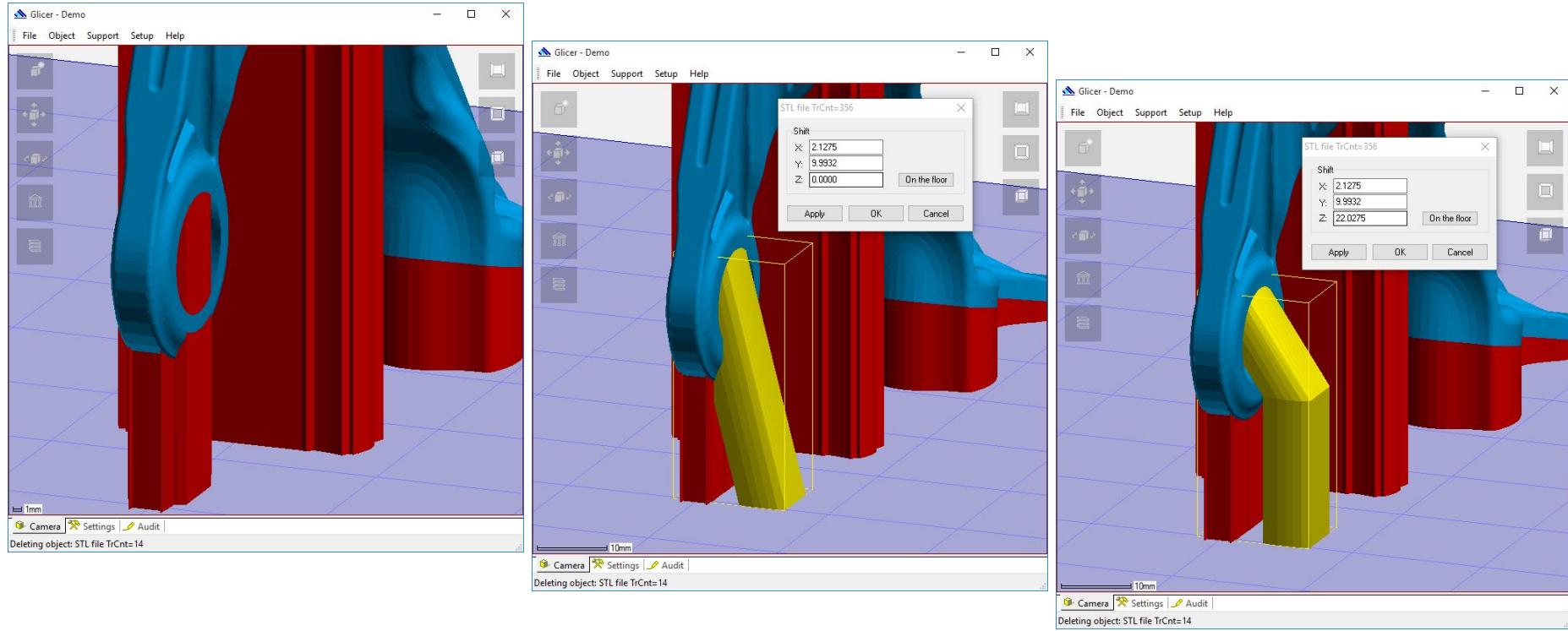
*Not filtered*



*Filtered*

# ATSS::Glicer – Supporting

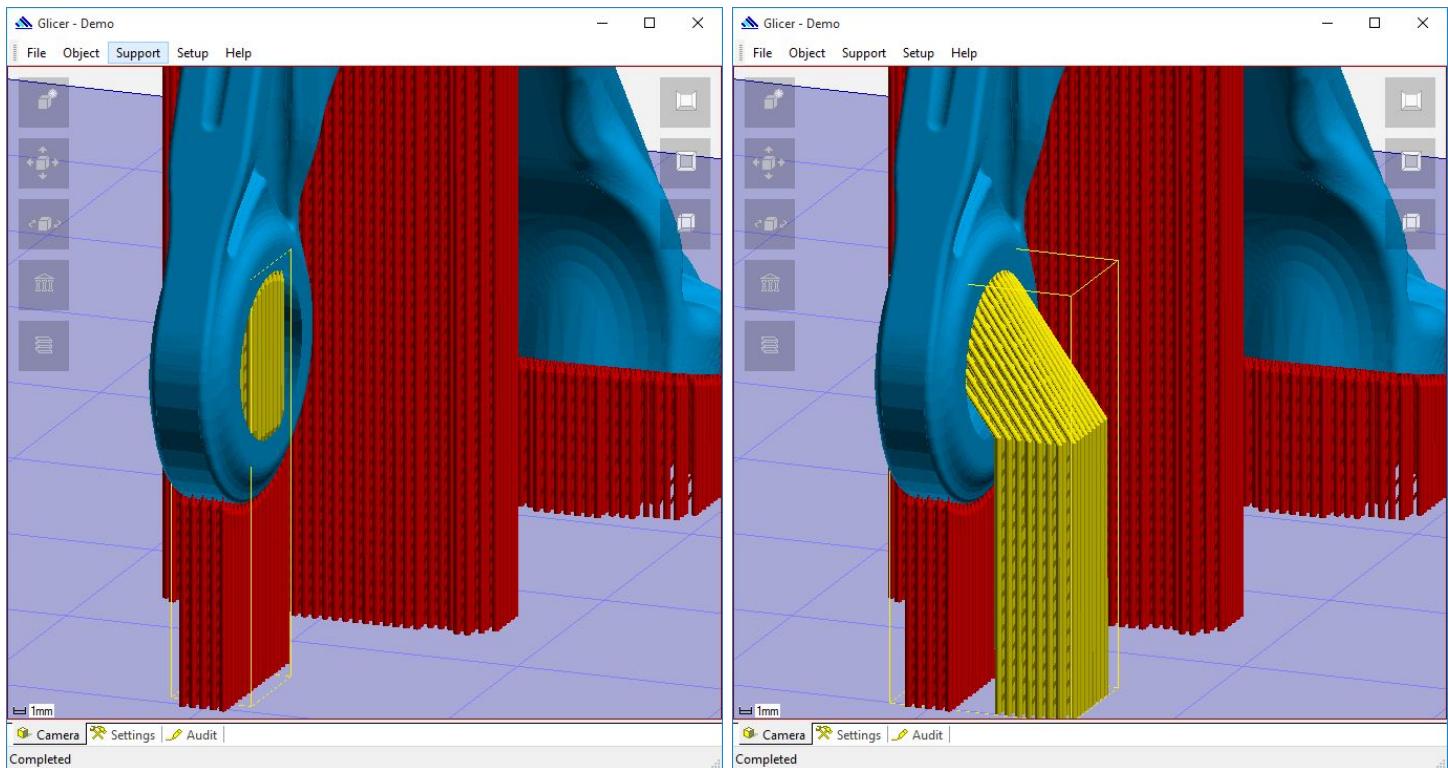
## Support bodies placement



Model from grabcad.com

# ATSS::Glicer – Supporting

## Building support structures



# ATSS::Glicer – GCode

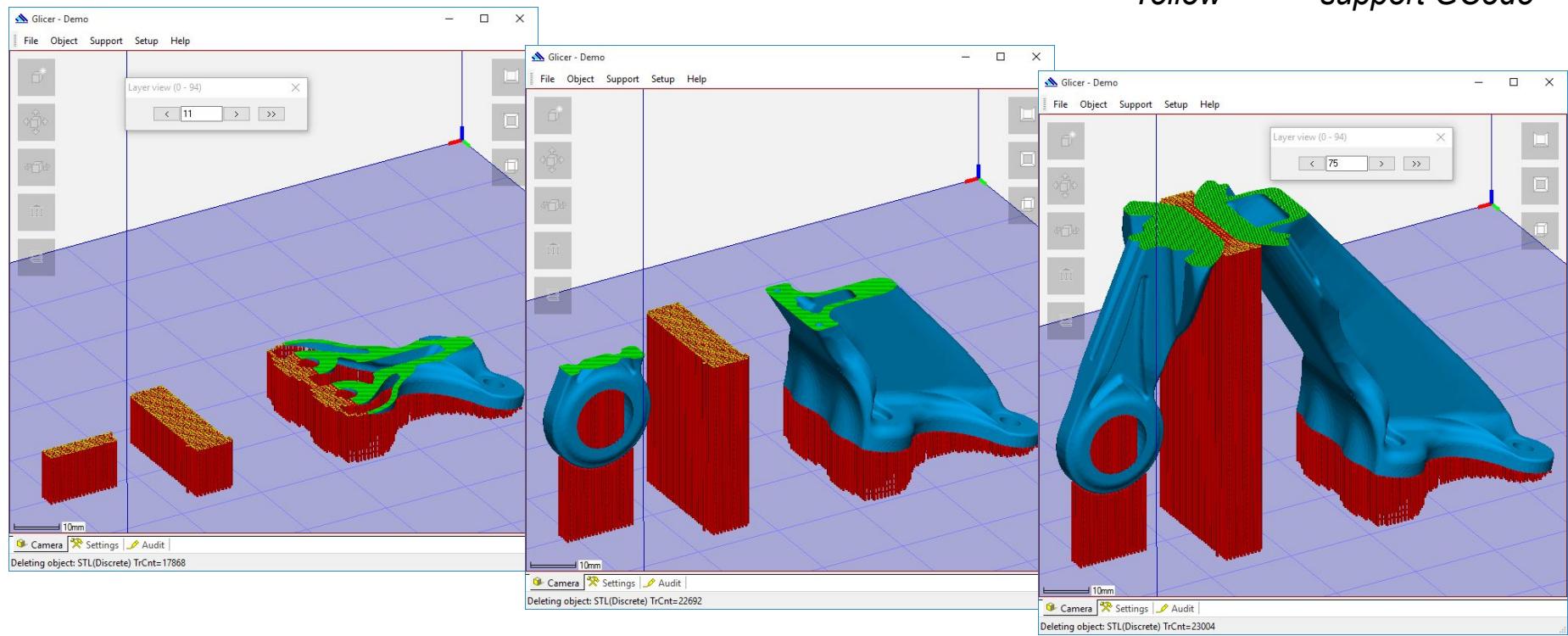
## Growing layer visualization

Blue – model

Red – support

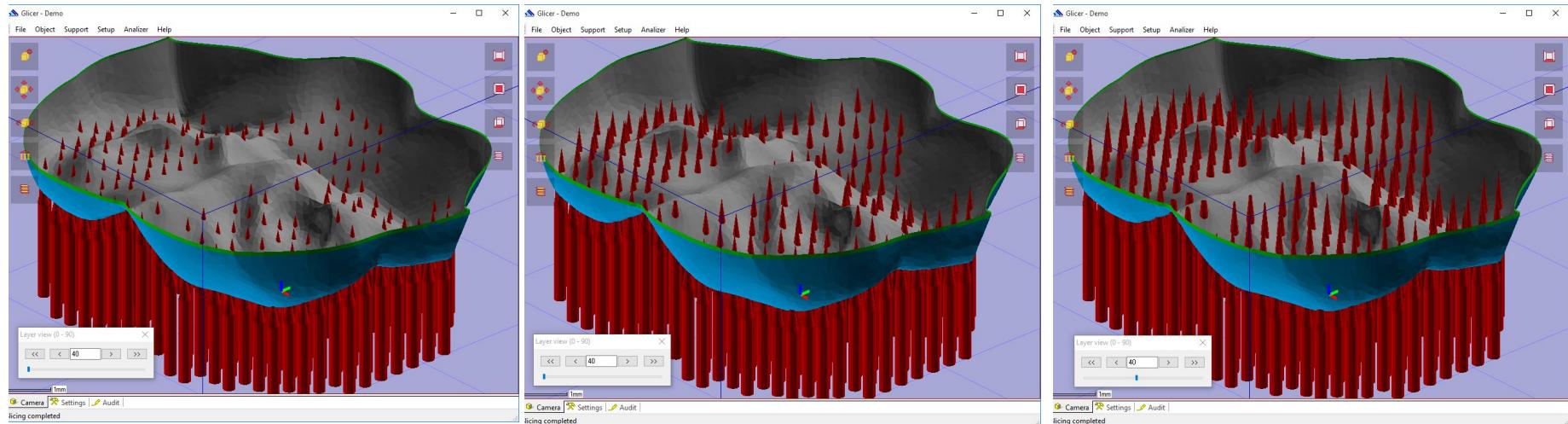
Green – model GCode

Yellow – support GCode



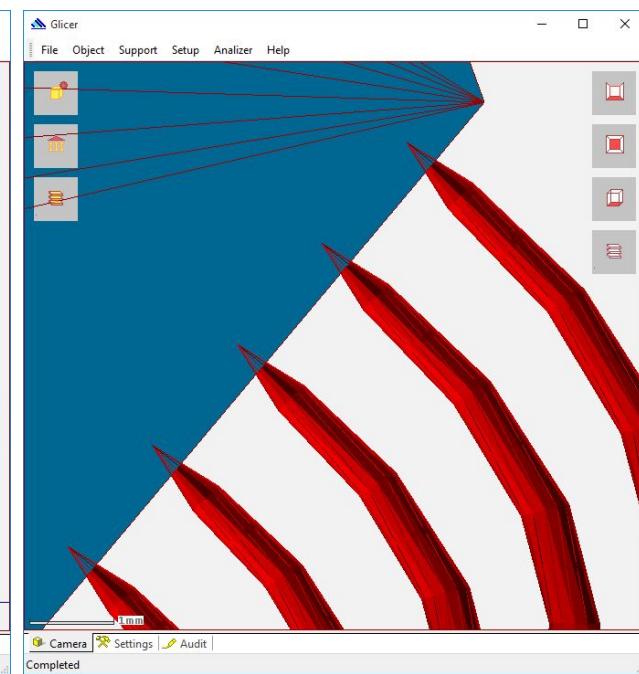
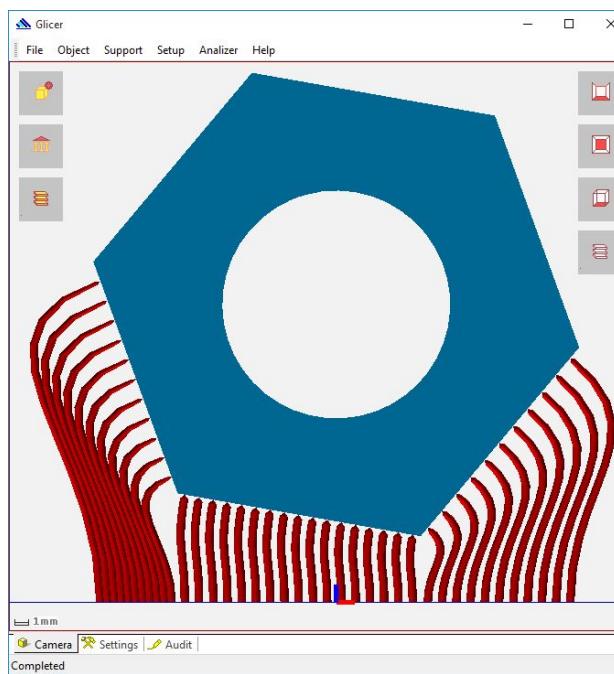
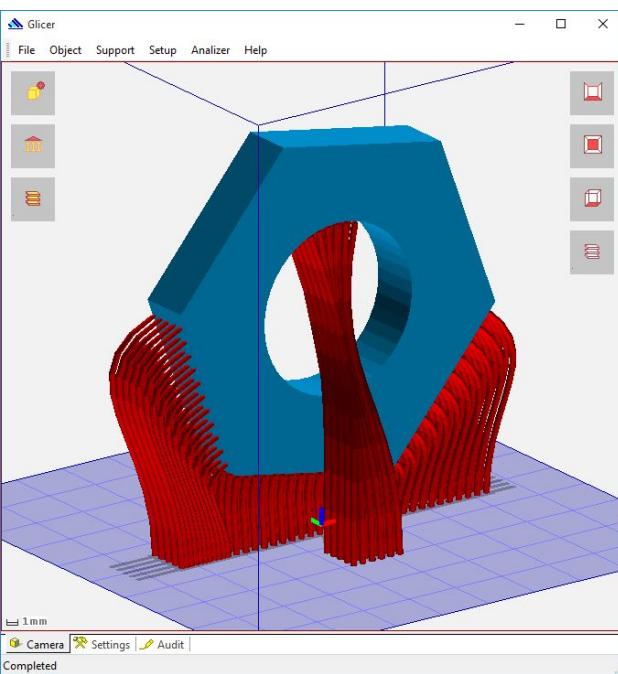
# ATSS::Glicer – Supporting

Support and model crossing control



# ATSS::Glicer – Supporting

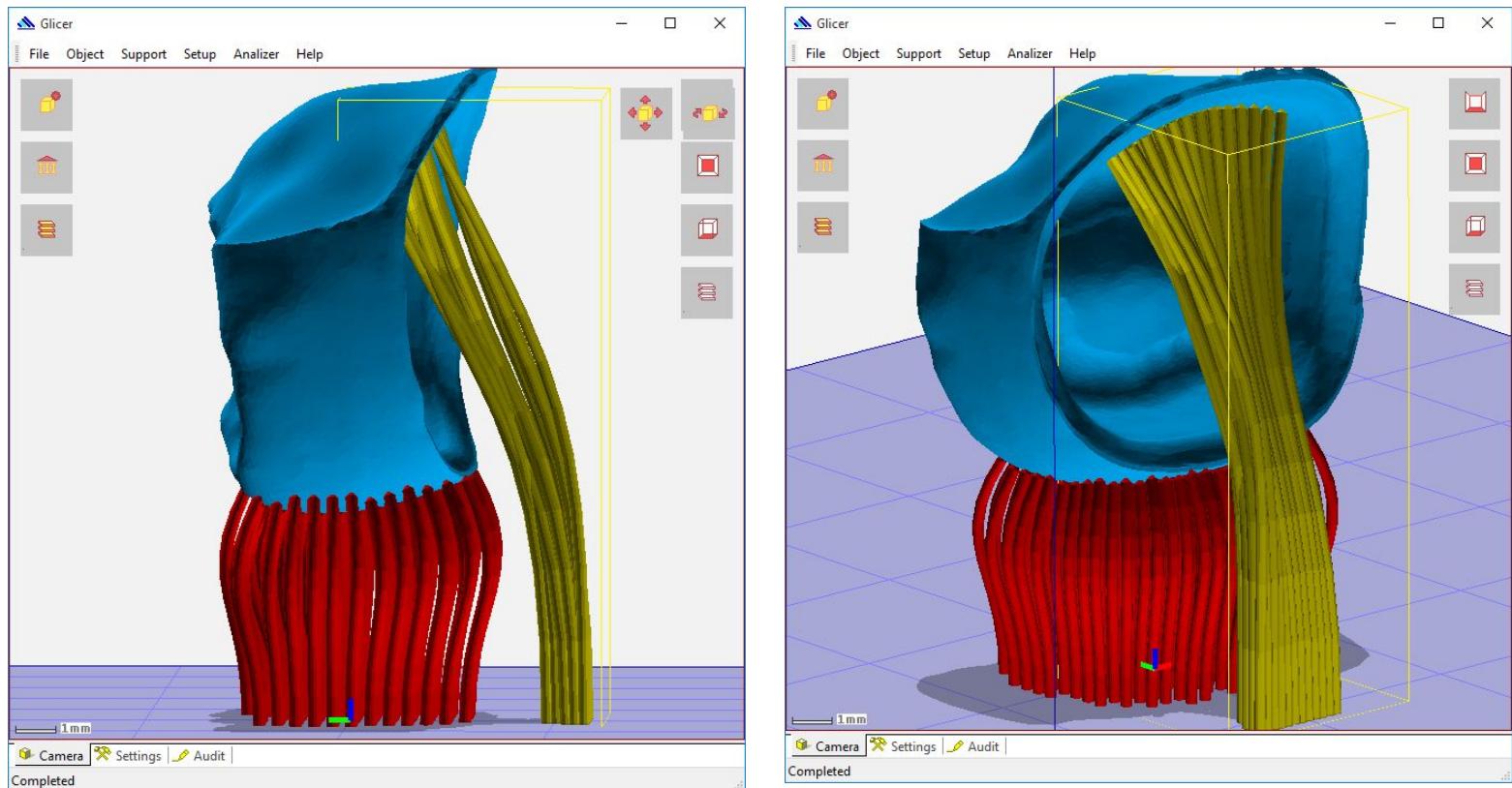
## Support and model crossing control



*Support structure as spline columns:  
square of the intersection does not depend on normals of the surface*

# ATSS::Glicer – Supporting

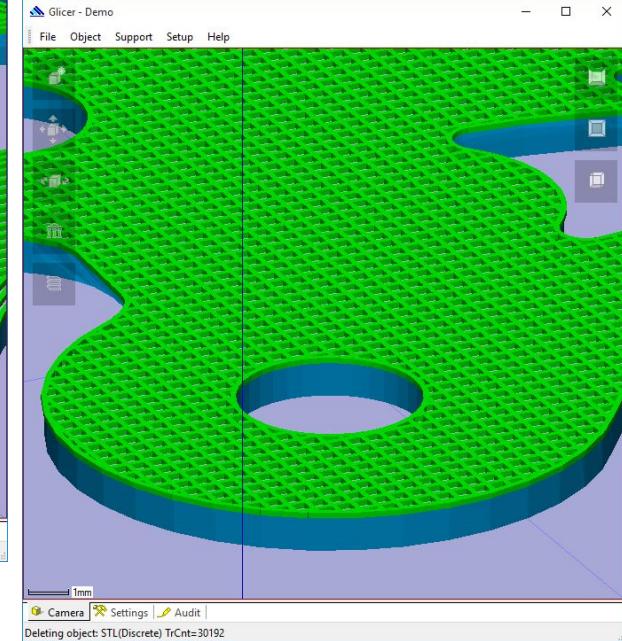
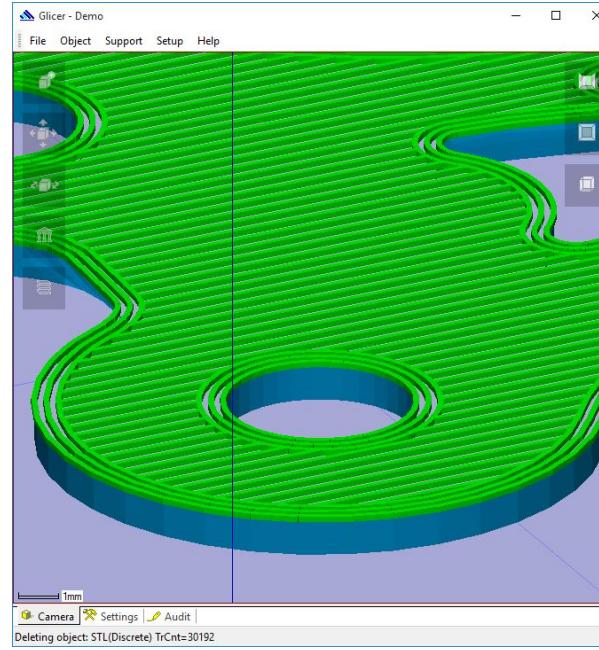
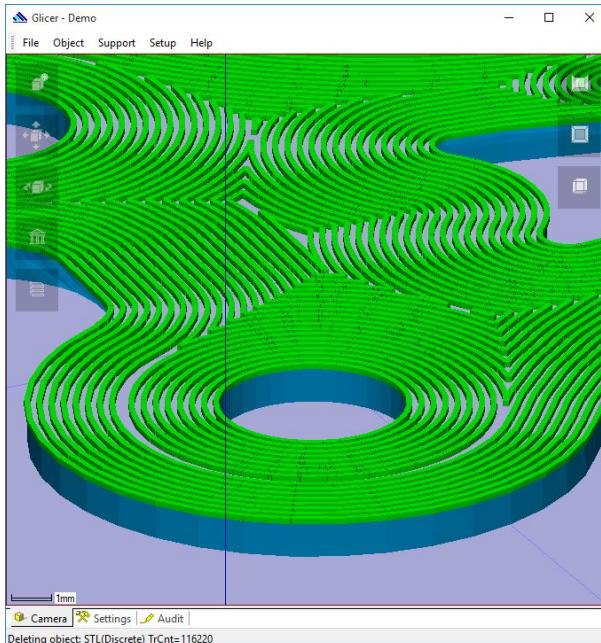
Support and model crossing control



# ATSS::Glicer – GCode

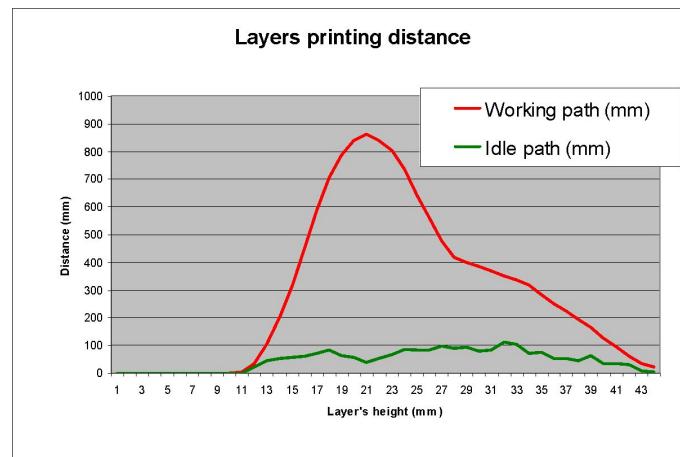
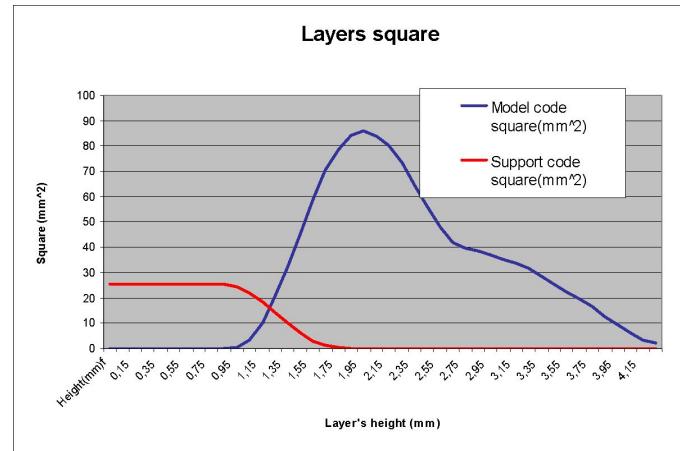
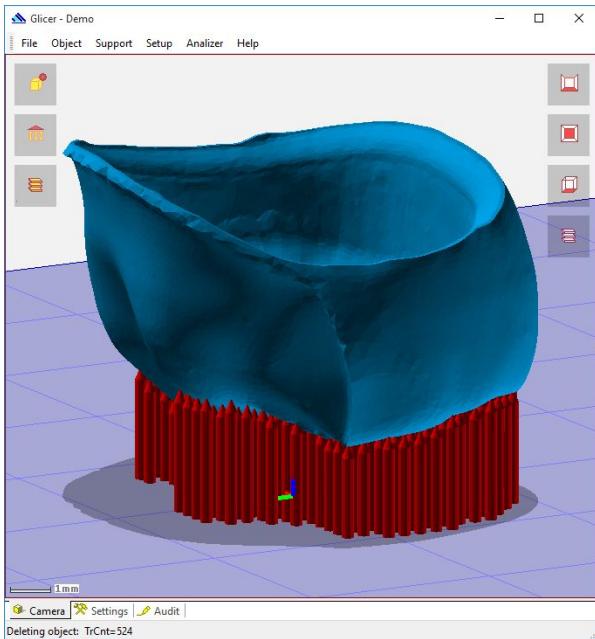
## GCode building tools

- Equidistance offset perimeters
- Various hatching patterns



# ATSS::Glicer – GCode

## GCode statistic



# ATSS::Glicer – GCode

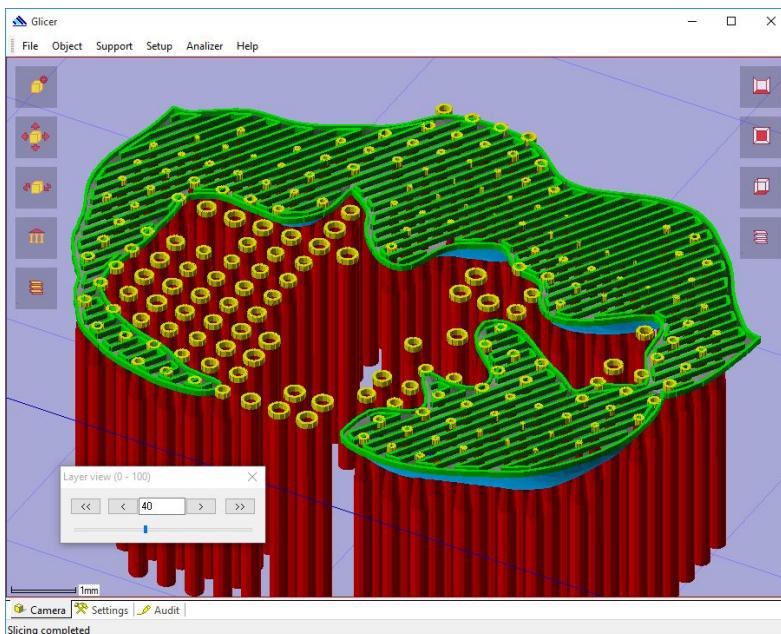
## Supporting GCode filtering

Blue – model

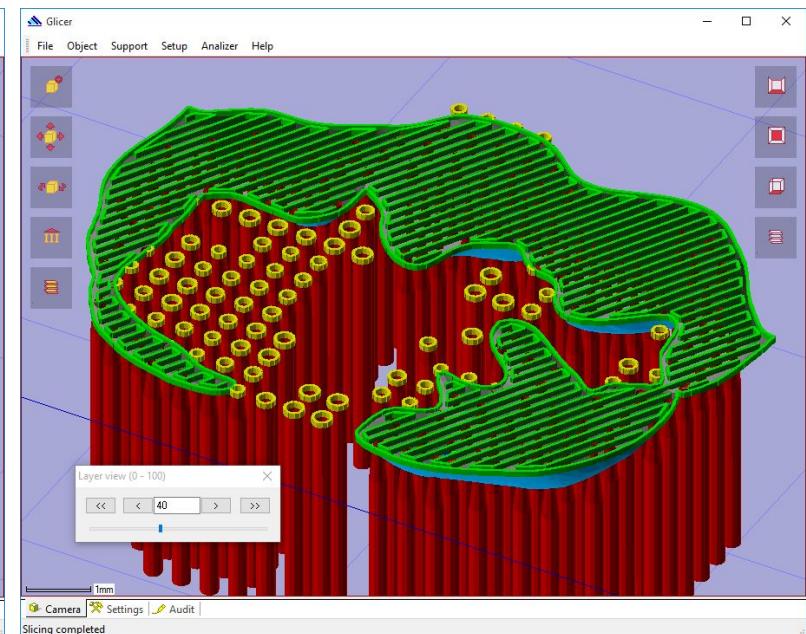
Red – support

Green – model GCode

Yellow – support GCode



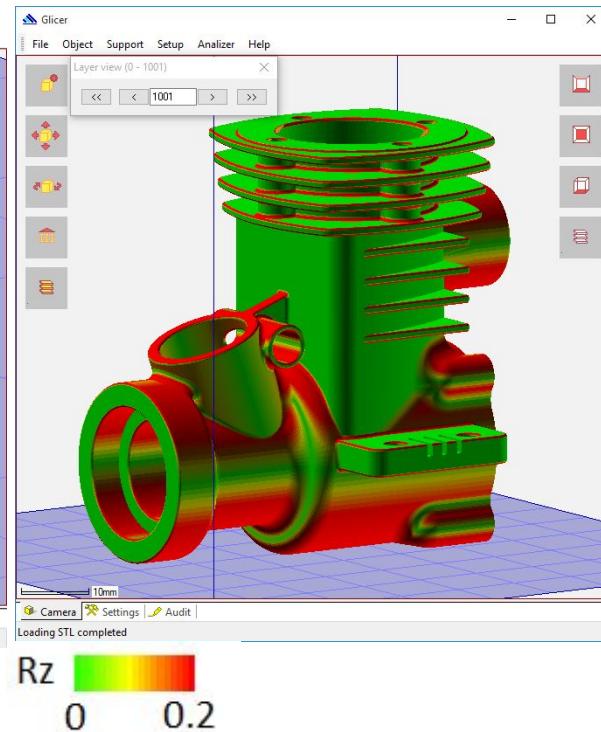
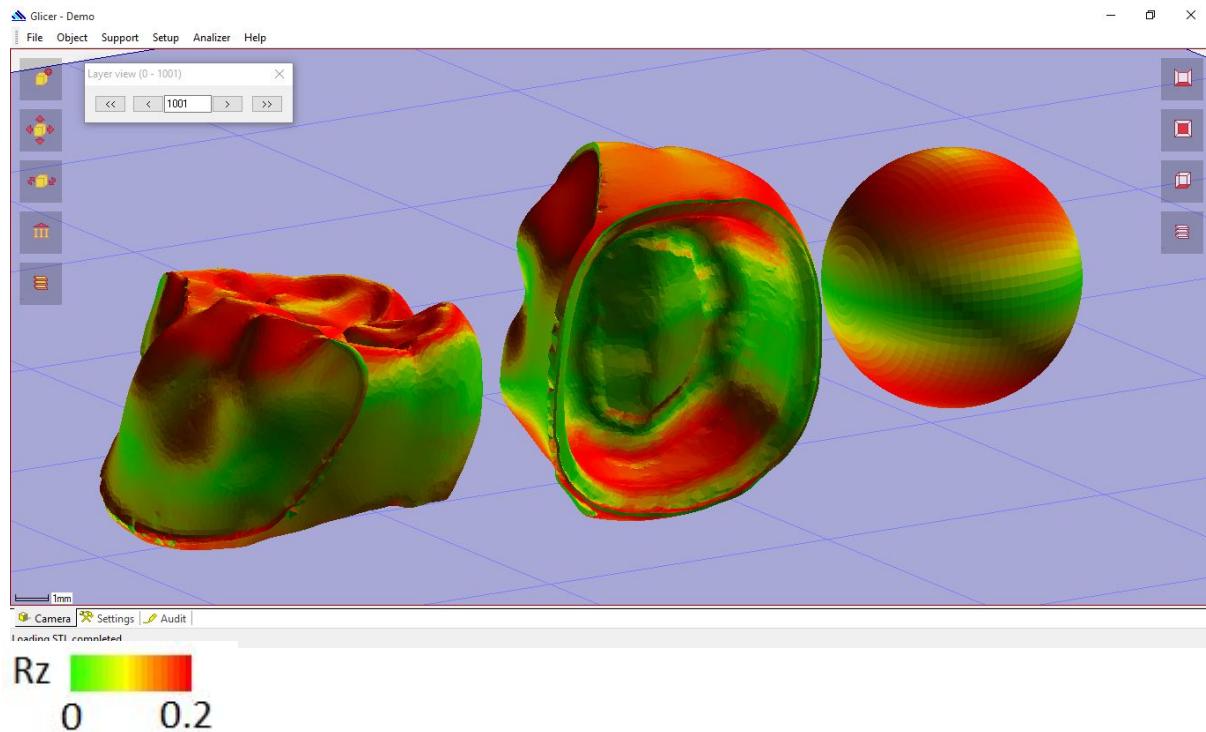
*Not filtered*



*Filtered*

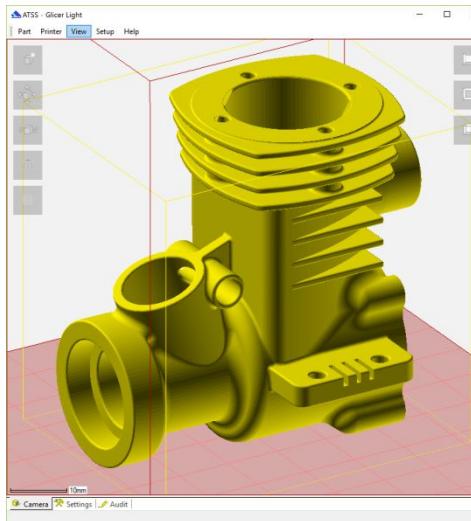
# ATSS::Glicer – Surface quality

Ra vizualization ( $L = 0.25$ )



# ATSS::Glicer - Production

SLS 3D printer  
«Red Rock»  
and  
ATSS Glicer



**RED ROCK 3D**   
первый российский 3D принтер, работающий по технологии селективного лазерного спекания пластикового порошка

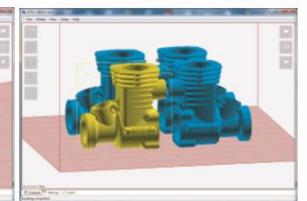
**RED ROCK 3D SLS**

Характеристики RED ROCK 3D	
Технология печати	Селективное лазерное спекание
Материал	Порошок PP или HDPE
Рабочая область печати (ДxШxВ)	200x200x180 мм
Толщина слоя печати	0.1 мм
Производительность	20 см <sup>2</sup> /час
Управление	Сенсорный 5" дисплей
Габариты (ДxШxВ)	800x430x770 мм
Масса	35 кг

первый российский программный продукт технологической подготовки аддитивного производства

**ATSS - Glicer**

Компоновка  
Слайсинг  
Генератор команд  
Контроль печати

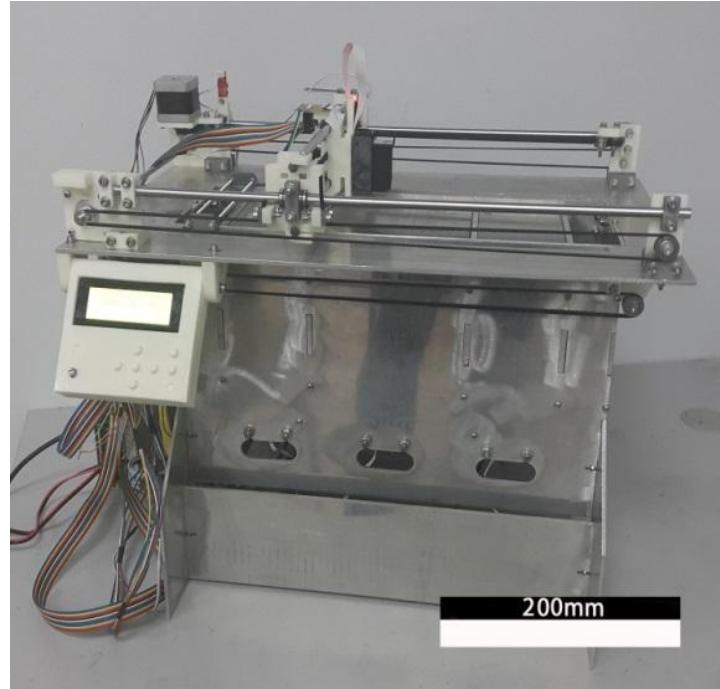
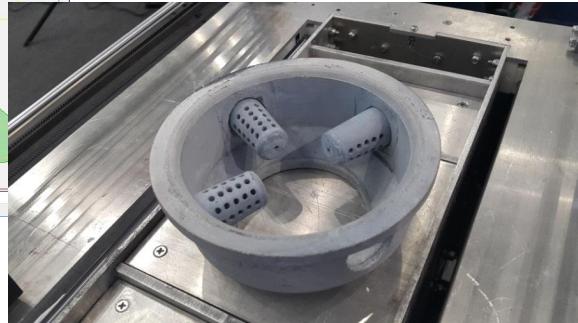
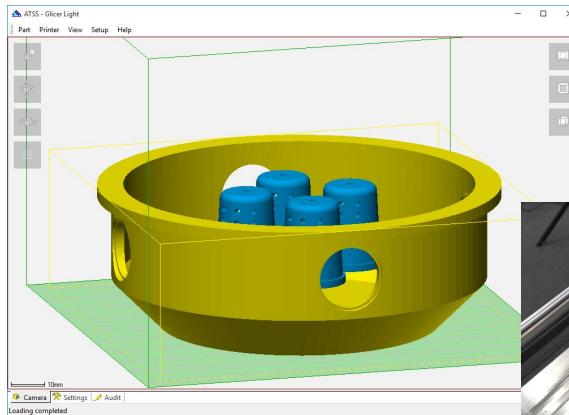
  


**RED ROCK 3D**  
[www.redrocksls.com](http://www.redrocksls.com)  
г. Москва, м. Полежаевская, ул. Зорге, д.18, корп. 2  
Тел.: +7 (499) 115-95-83; +7 (916) 770-78-13  
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**ATSS**  
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Тел.: +7 (926) 551-73-33; +7 (963) 666-86-97  
E-mail: info@atssgroup.com

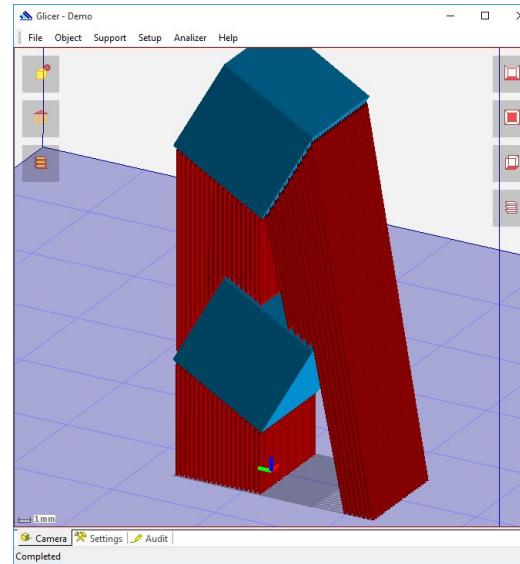
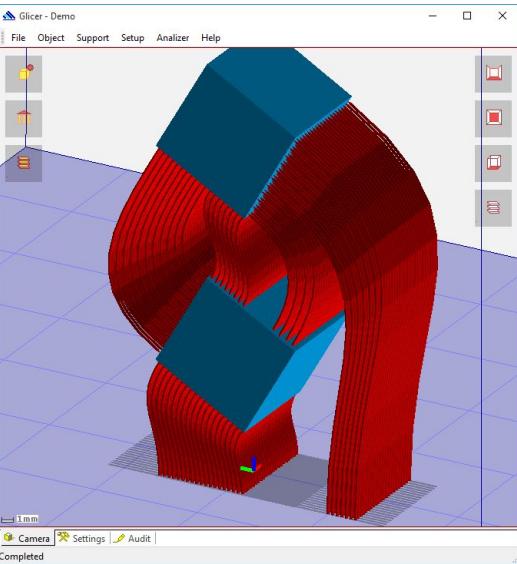
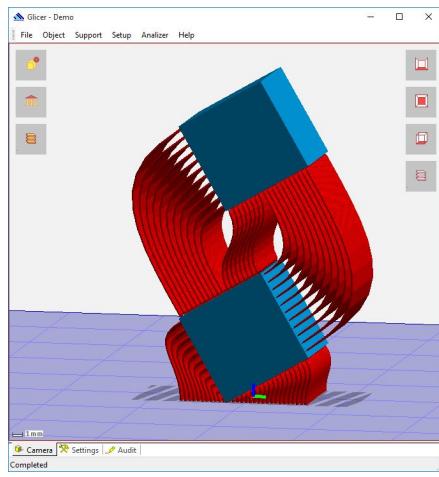
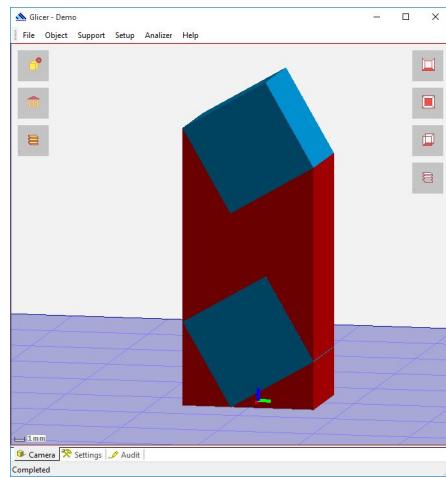
# ATSS::Glicer - Production

Binder Jet 3D printer  
«Plan B»  
and  
ATSS Glicer



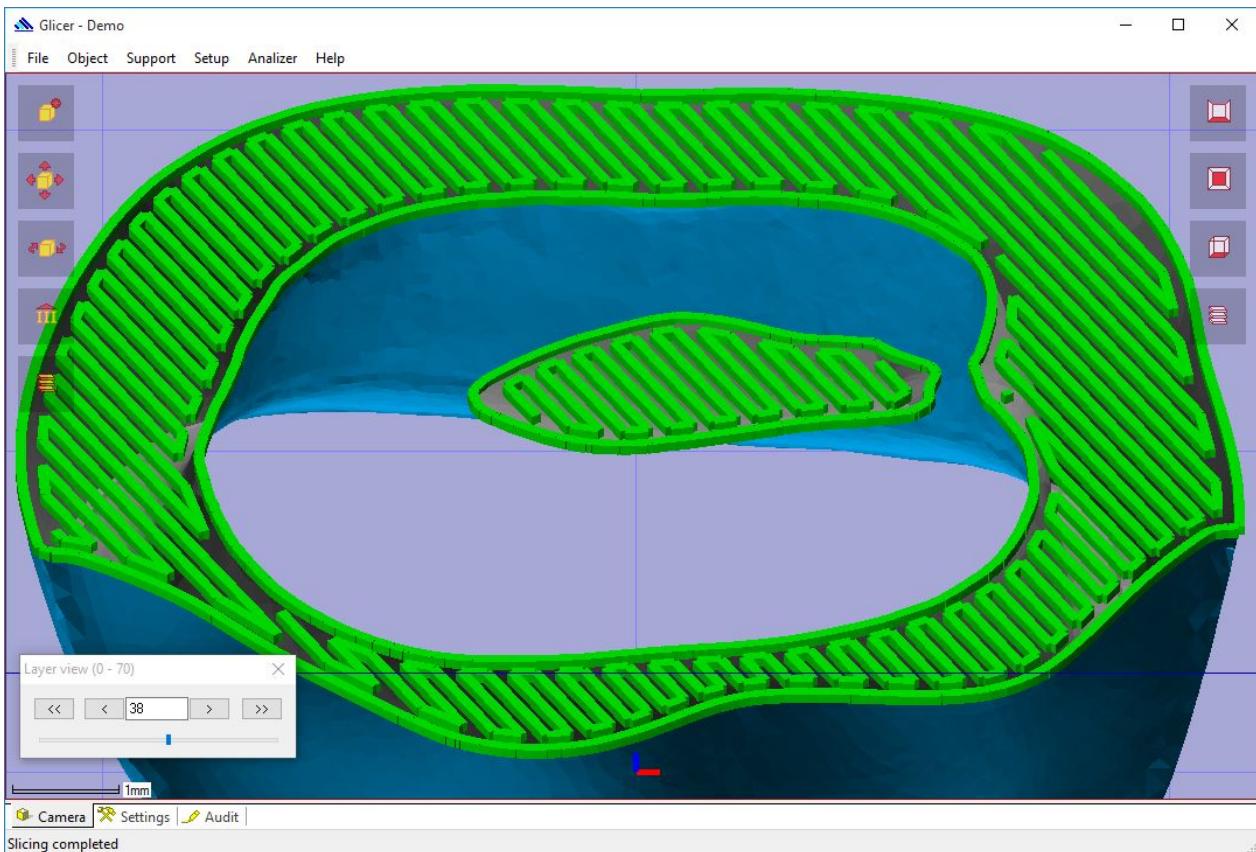
# ATSS – Glicer

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# ATSS::Glicer – GCode

## GCode optimization



"Laser on" length  
265,96 mm

"Laser off" length  
25,81 mm