Практична робота № 5

Підготовка 3D-моделі для друку на SLA 3D-принтері

Мета роботи *– отримати практичні навички автоматизованої підготовки 3D-моделі та стаорення керуючої программ для друку на SLA 3D-принтері.*

Обладнання: *комп'ютер, встановлене загальносистемне програмне забезпечення, встановлена або браузерна версія спеціалізованого програмного забезпечення (Autodesk Fusion 360).*

ХІД РОБОТИ:

1. **Завантажити 3D-модель деталі.**

3D-модель деталі надається викладачем (рис.3.1).

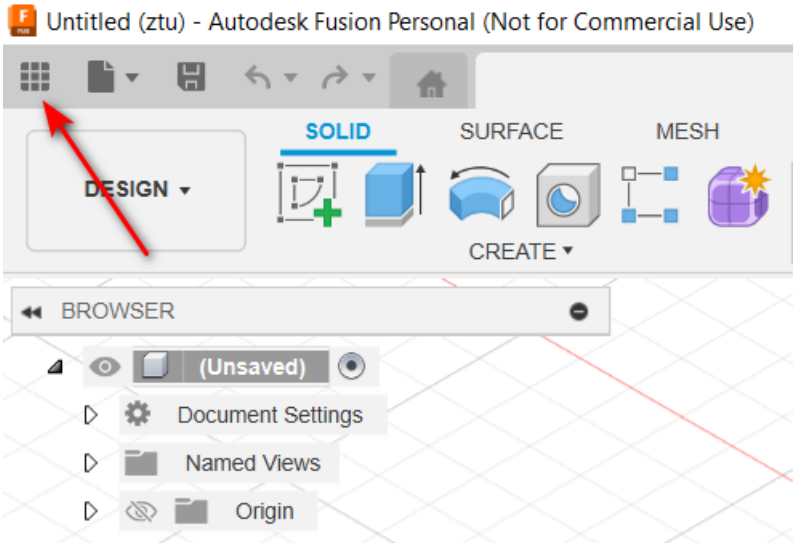
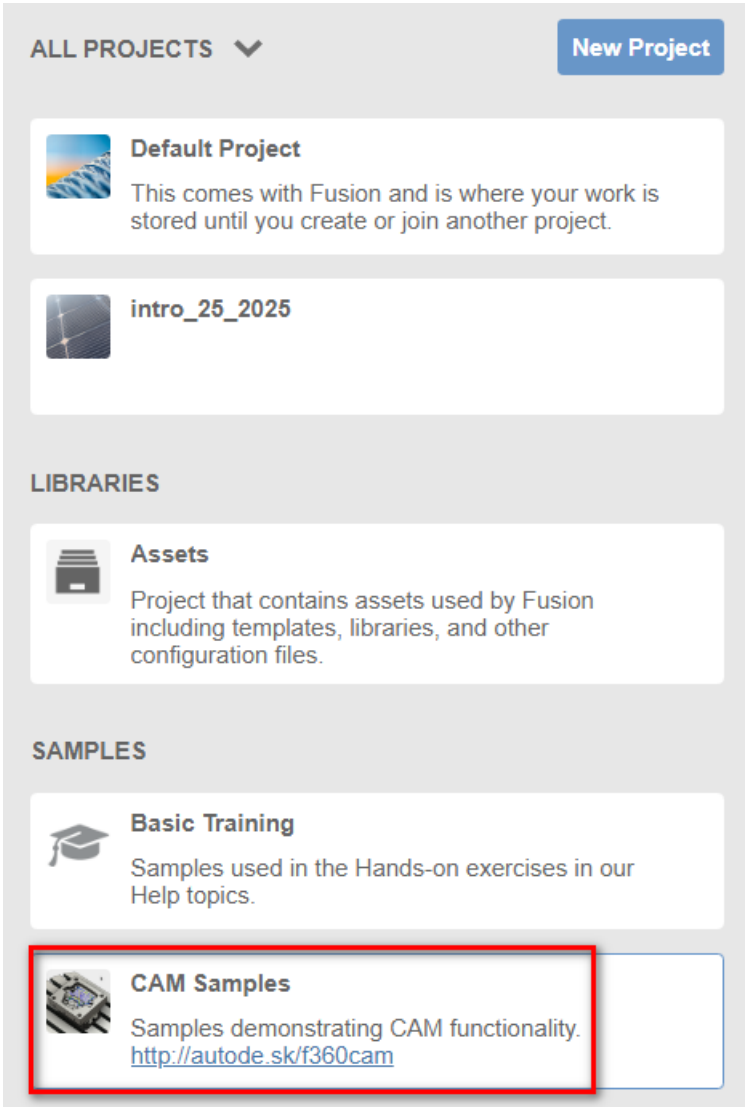
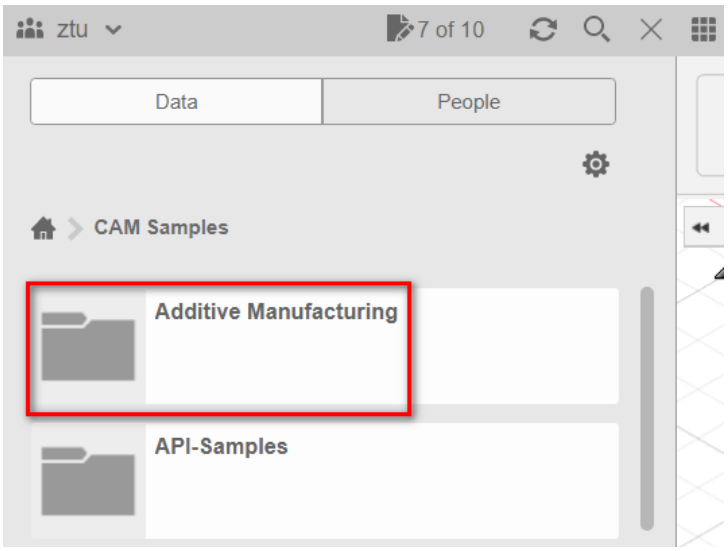


Рис.3.1. 3D-модель деталі для 3D-друку


ALL PROJECTS
New Project
Default Project
This comes with Fusion and is where your work is stored until you create or join another project.
intro_25_2025
LIBRARIES
Assets
Project that contains assets used by Fusion including templates, libraries, and other configuration files.
SAMPLES
Basic Training
Samples used in the Hands-on exercises in our Help topics.
CAM Samples
Samples demonstrating CAM functionality.
http://autode.sk/f360cam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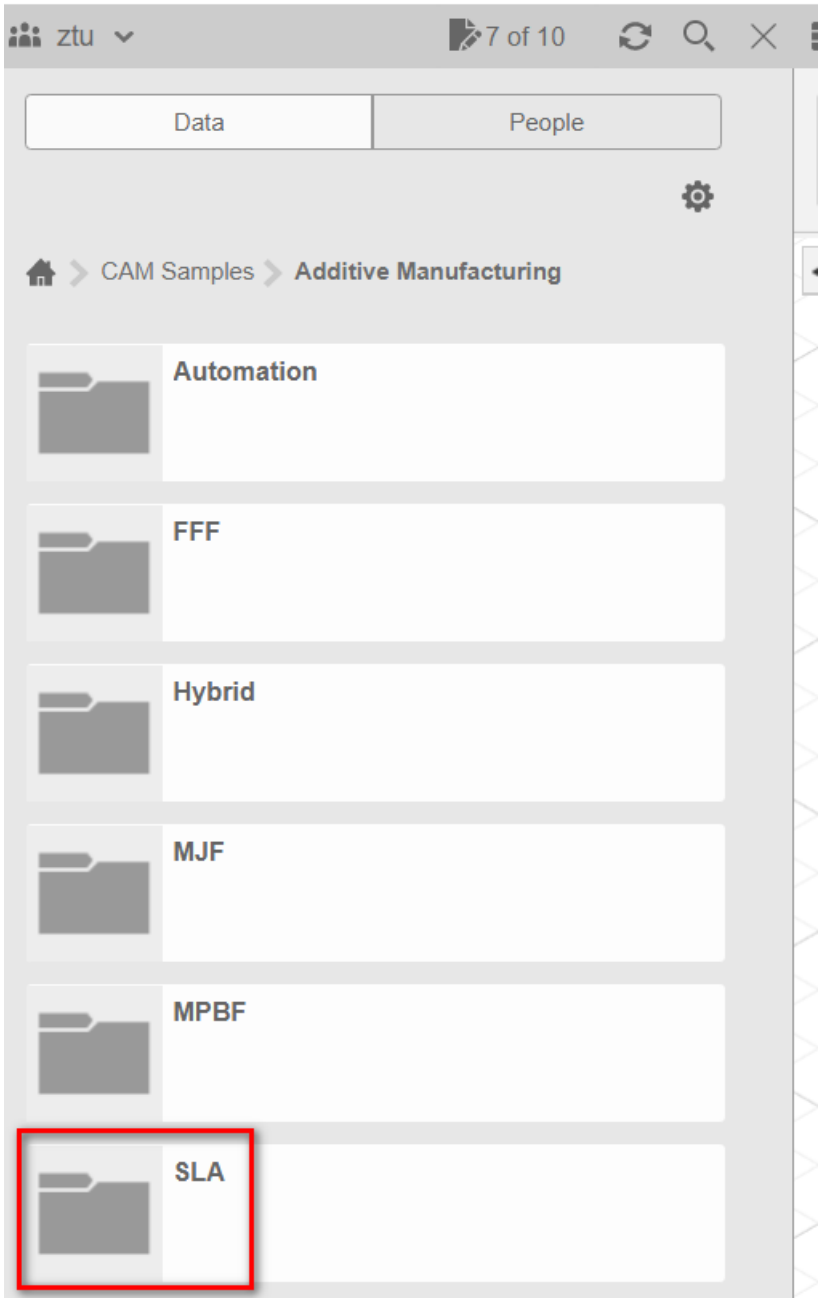
7 of 10
Data
People
CAM Samples
Additive Manufacturing
API-Samples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7 of 10
Data
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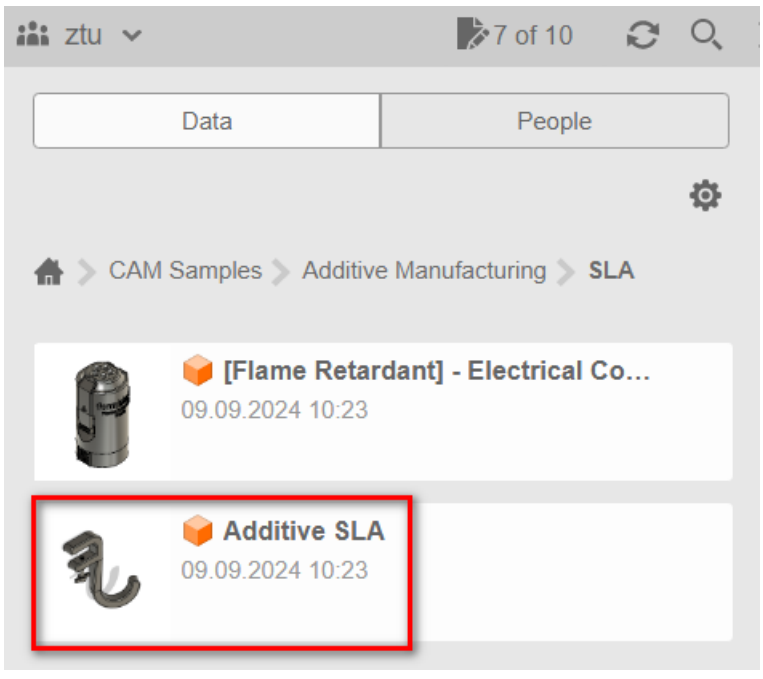
Automation
FFF
Hybrid
MJF
MPBF
SLA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7 of 10
Data
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Additive Manufacturing
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Additive SLA
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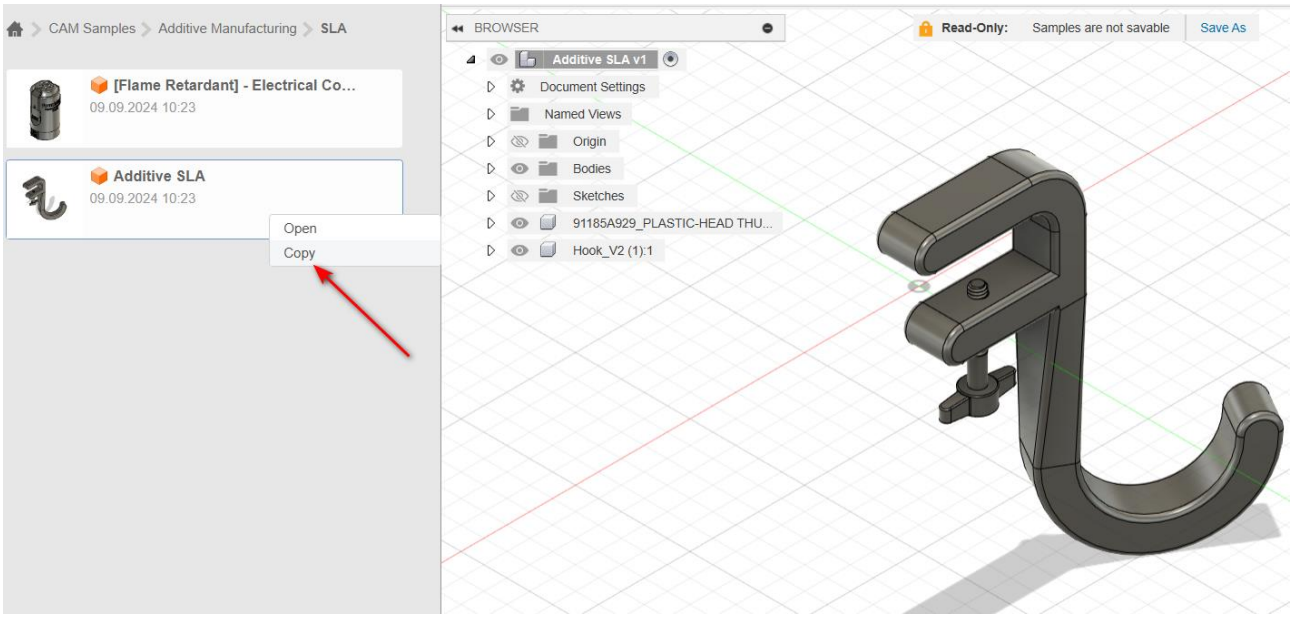
CAM Samples
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Additive SLA
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BROWSER
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Named Views
Origin
Bodies
Sketches
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Hook_V2 (1):1
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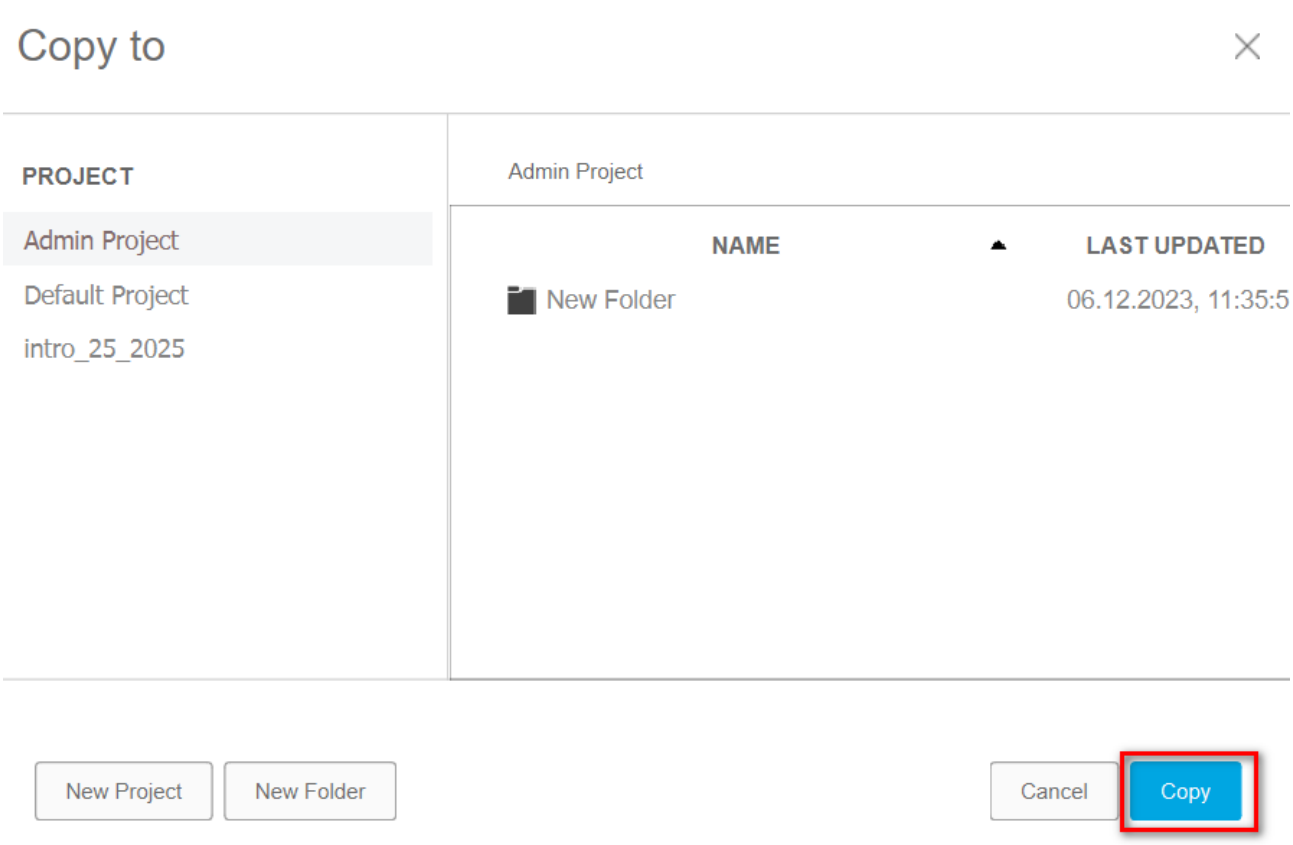
Copy to
PROJECT
Admin Project
Default Project
intro_25_2025
Admin Project
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Cancel
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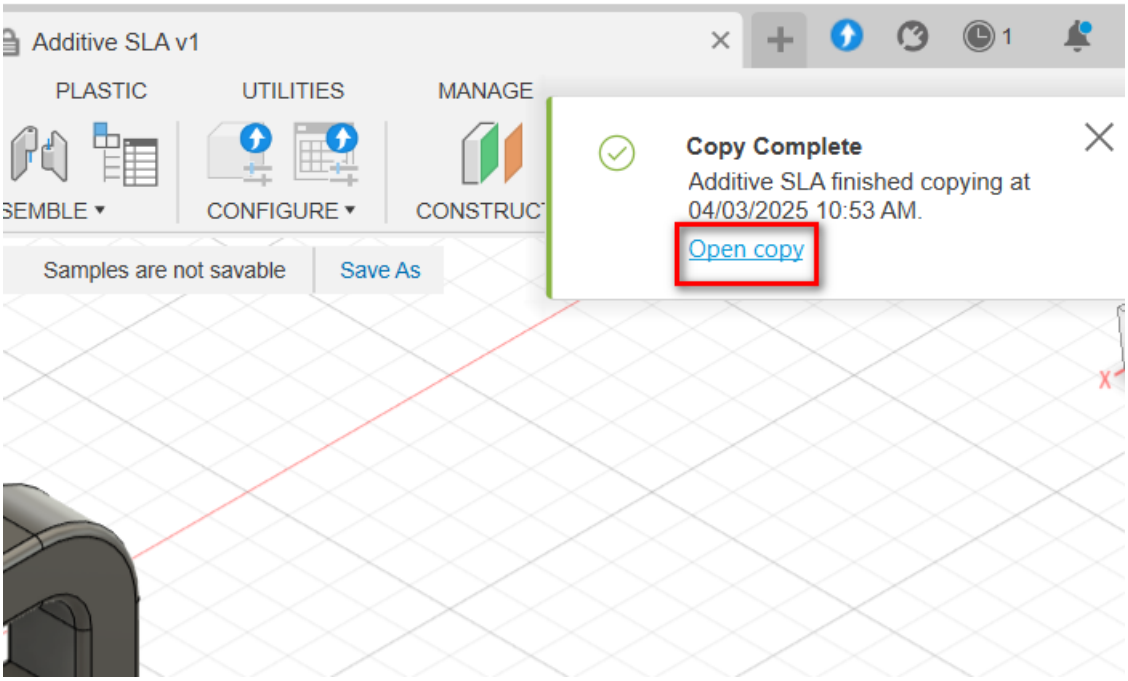
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PLASTIC
UTILITIES
MANAGE
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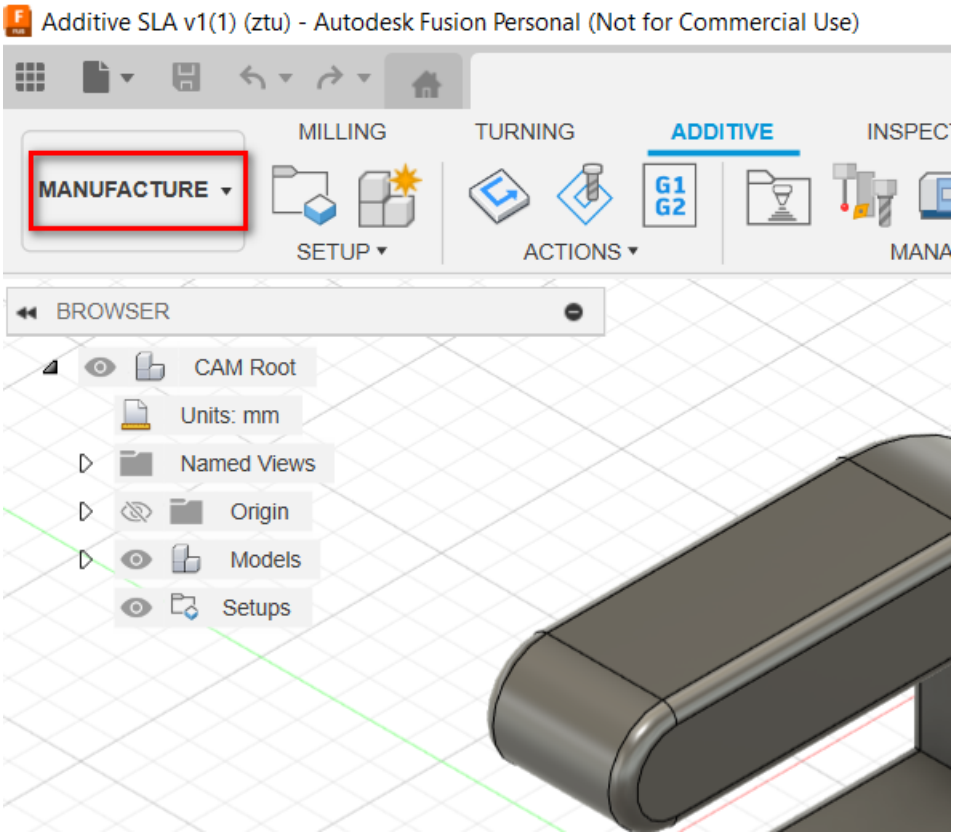
Additive SLA v1(1) (ztu) - Autodesk Fusion Personal (Not for Commercial Use)
MANUFACTURE
MILLING
TURNING
ADDITIVE
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SETUP
ACTIONS
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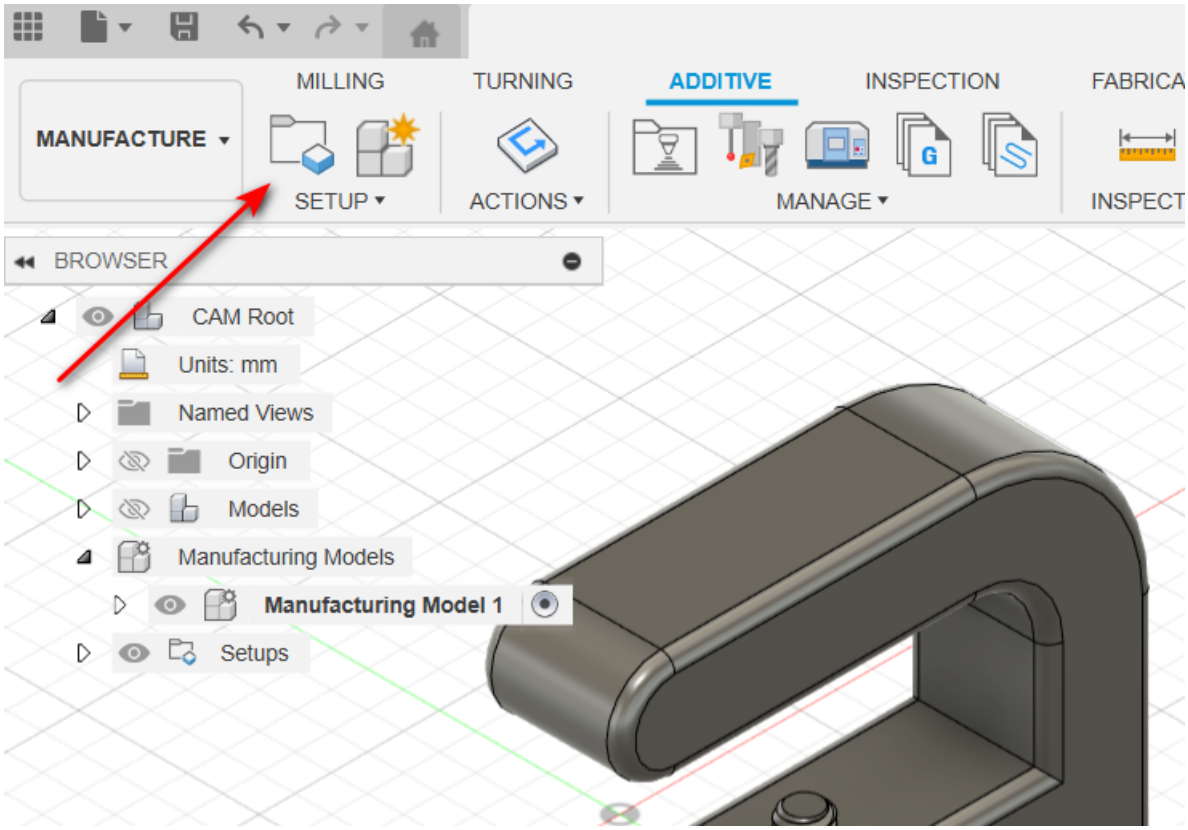
BROWSER
CAM Root
Units: mm
Named Views
Origin
Models
Setups


MANUFACTURE
MILLING
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INSPECTION
FABRICA
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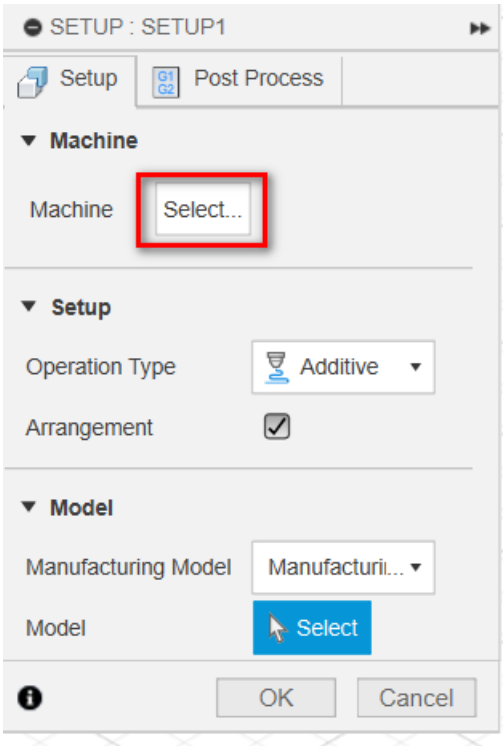
Models
Manufacturing Models
Manufacturing Model 1
Setups


SETUP : SETUP1
Setup
Post Process
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Machine
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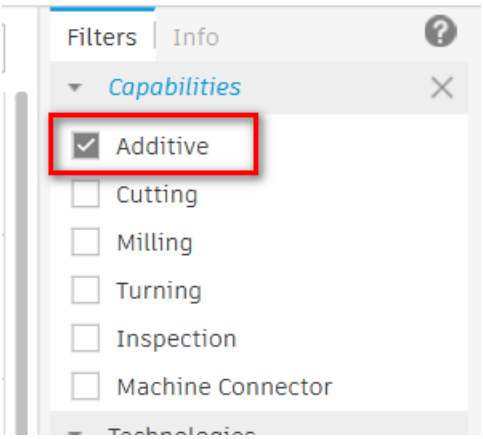
Model
Select
OK
Cancel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Info
Capabilities
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Cutting
Milling
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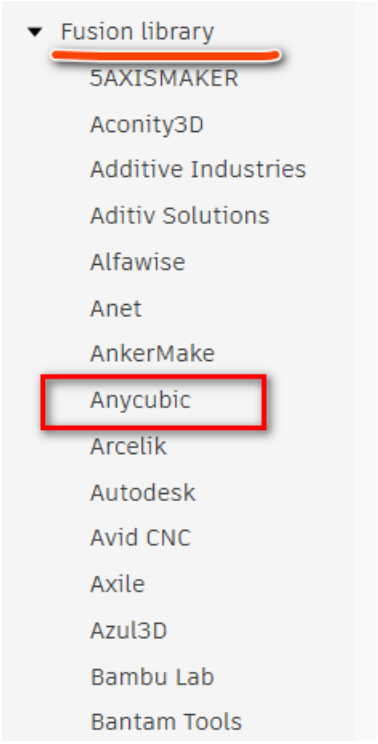
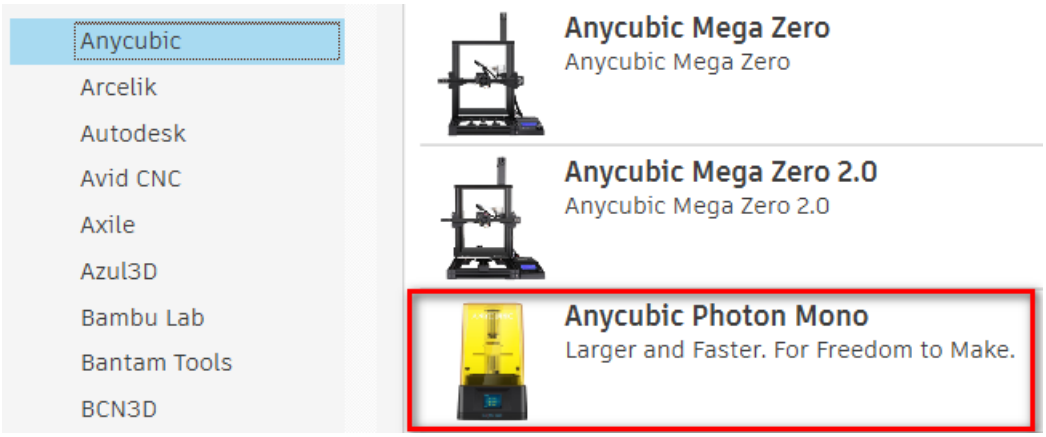
Inspection
Machine Connector


Fusion library
5AXISMAKER
Aconity3D
Additive Industries
Aditiv Solutions
Alfawise
Anet
AnkerMake
Anycubic
Arcelik
Autodesk
Avid CNC
Axile
Azul3D
Bambu Lab
Bantam Tools


Anycubic
Arcelik
Autodesk
Avid CNC
Axile
Azul3D
Bambu Lab
Bantam Tools
BCN3D
Anycubic Mega Zero
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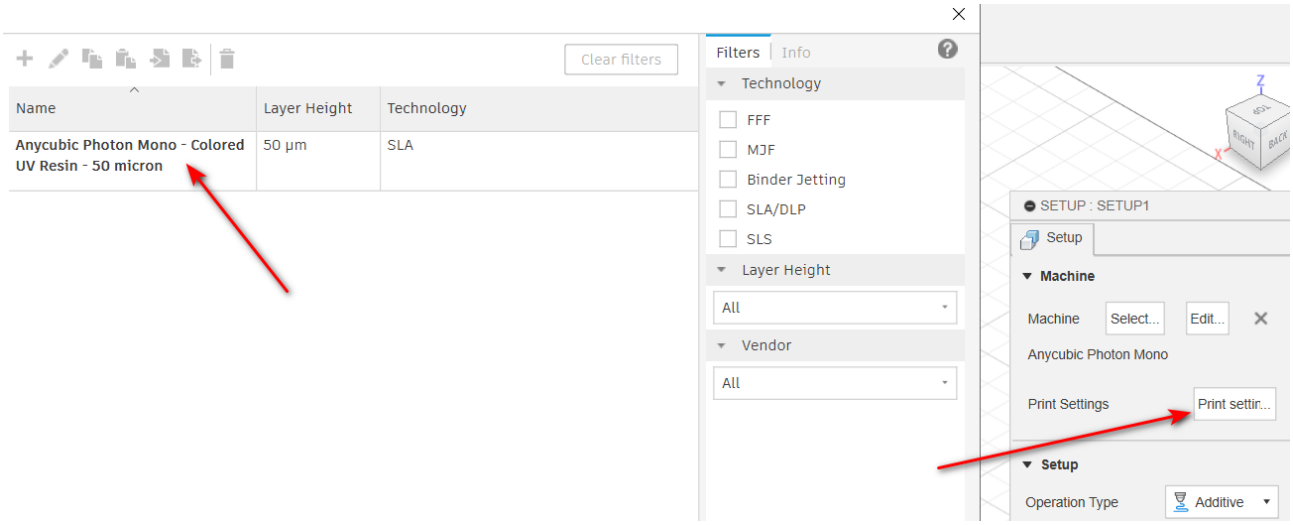
Anycubic Mega Zero 2.0
Anycubic Mega Zero 2.0
Anycubic Photon Mono
Larger and Faster. For Freedom to Make.


Clear filters
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SETUP : SETUP1
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Operation Type
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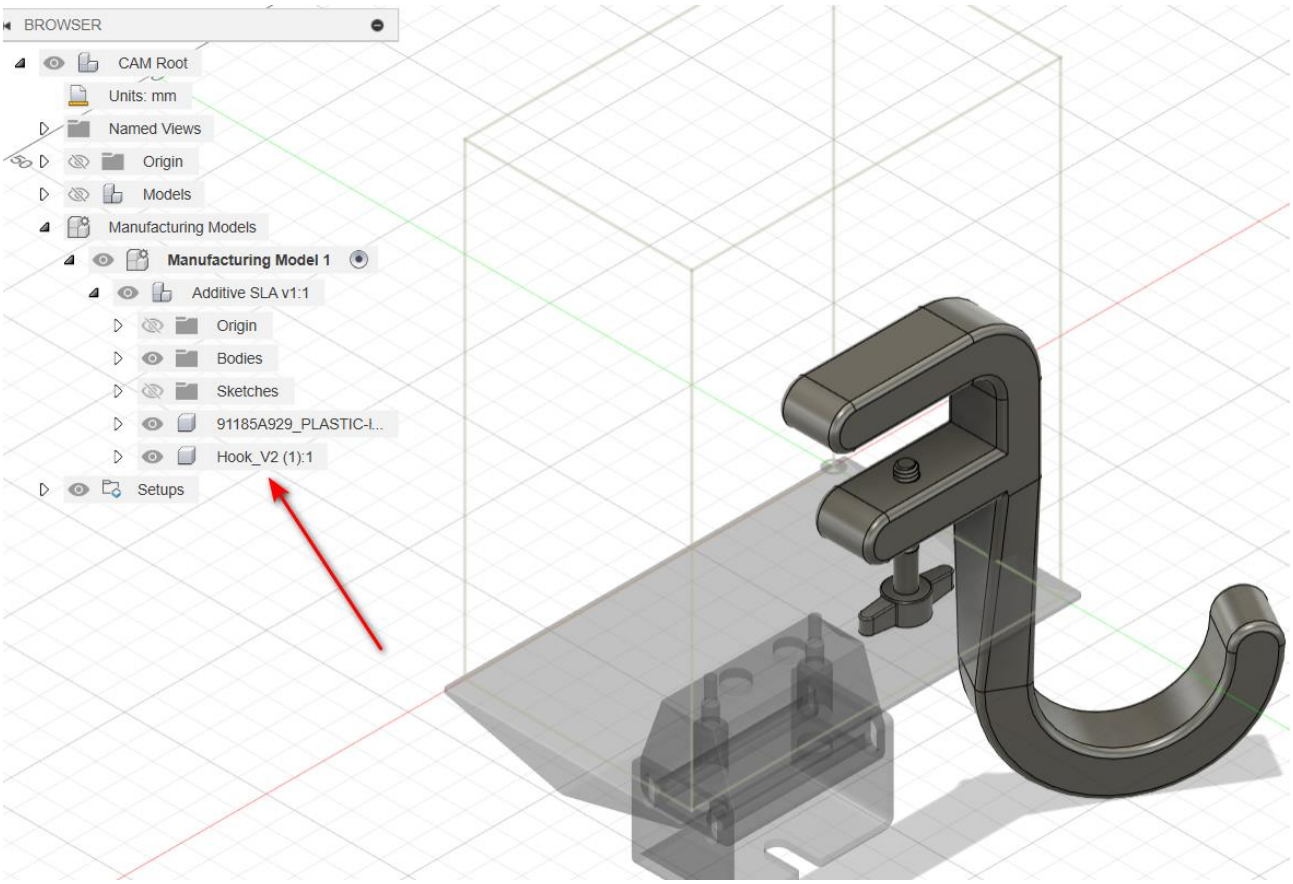
BROWSER
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Manufacturing Models
Manufacturing Model 1
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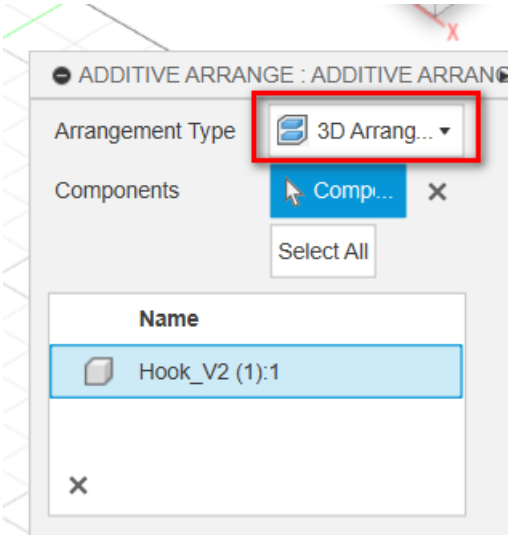
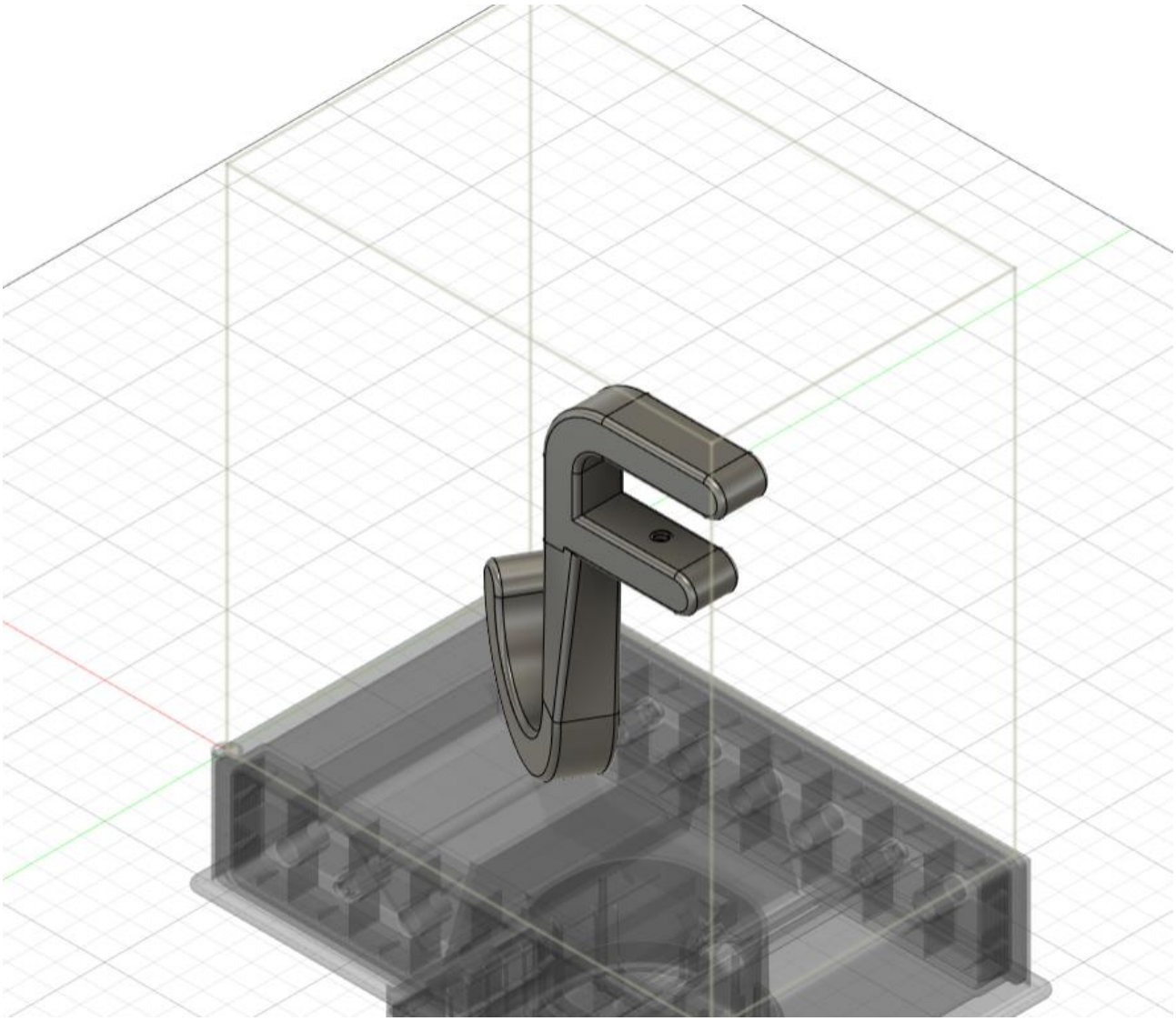
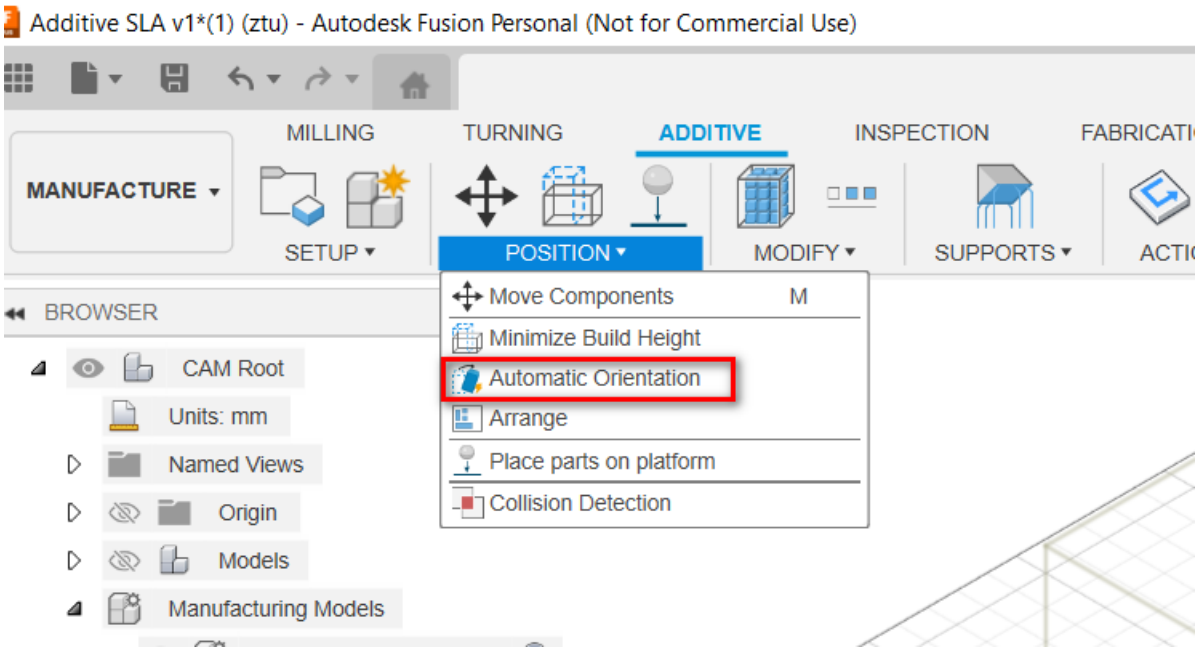
Hook_V2 (1):1
Setups


ADDITIVE ARRANGE : ADDITIVE ARRAN
Arrangement Type
3D Arrang...
Components
Compo...
Select All
Name
Hook_V2 (1):1




Additive SLA v1*(1) (ztu) - Autodesk Fusion Personal (Not for Commercial Use)
MANUFACTURE
MILLING
TURNING
ADDITIVE
INSPECTION
SETUP
POSITION
MODIFY
SUPPORTS
Move Components M
Minimize Build Height
Automatic Orientation
Arrange
Place parts on platform
Collision Detection
BROWSER
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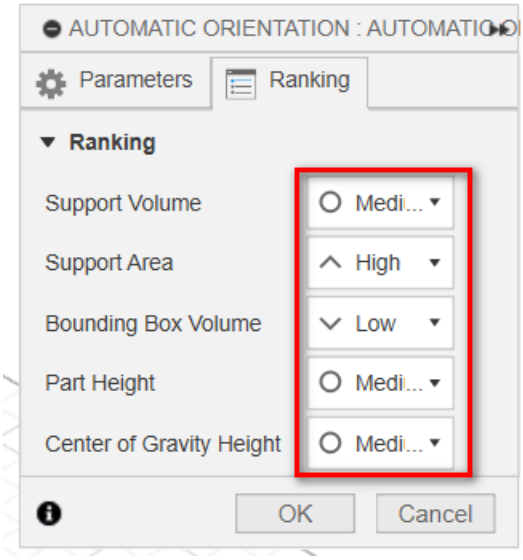
Named Views
Origin
Models
Manufacturing Models


AUTOMATIC ORIENTATION : AUTOMATIC
Parameters
Ranking
Ranking
Support Volume
Medi...
Support Area
High
Bounding Box Volume
Low
Part Height
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Center of Gravity Height
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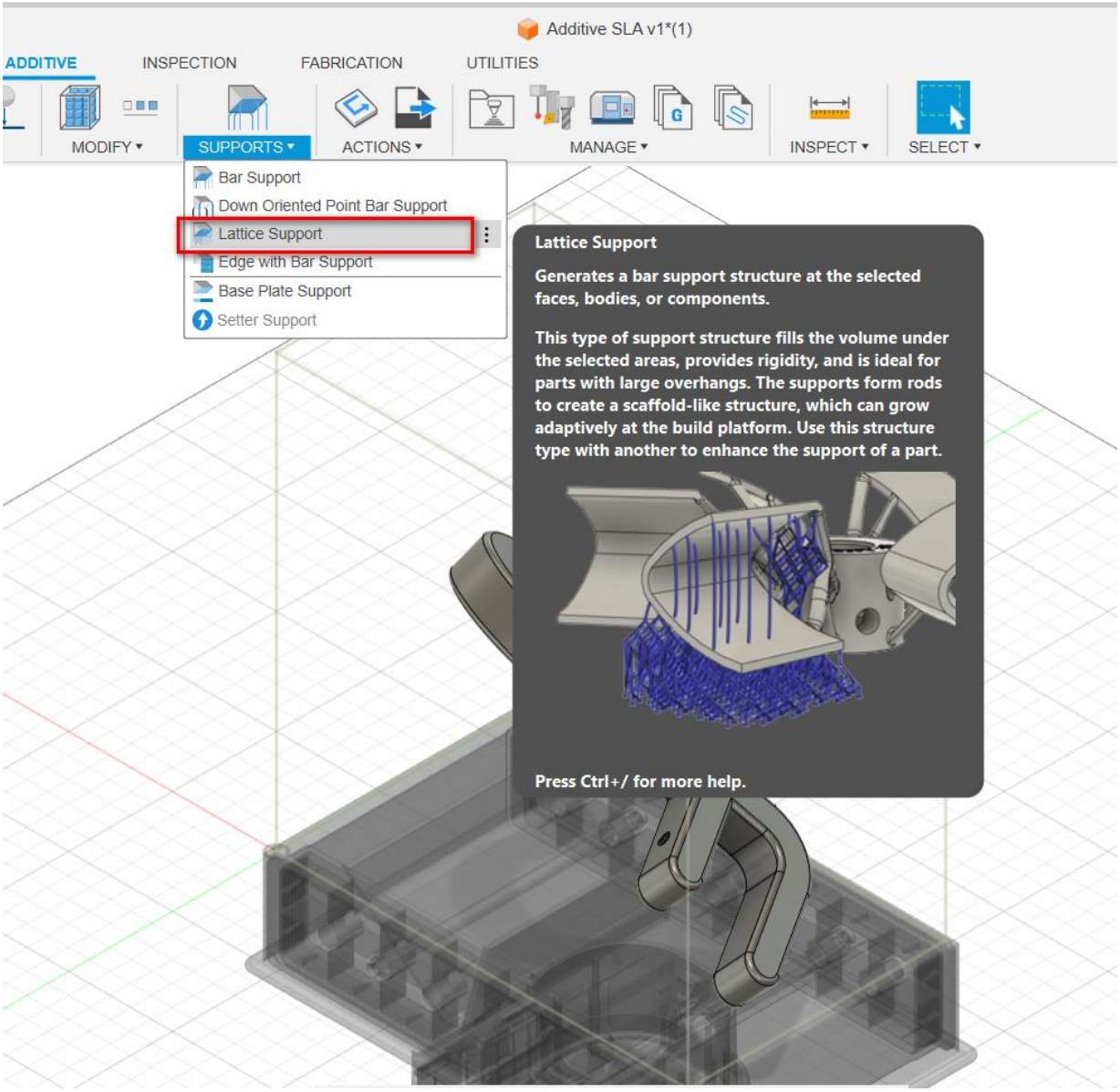
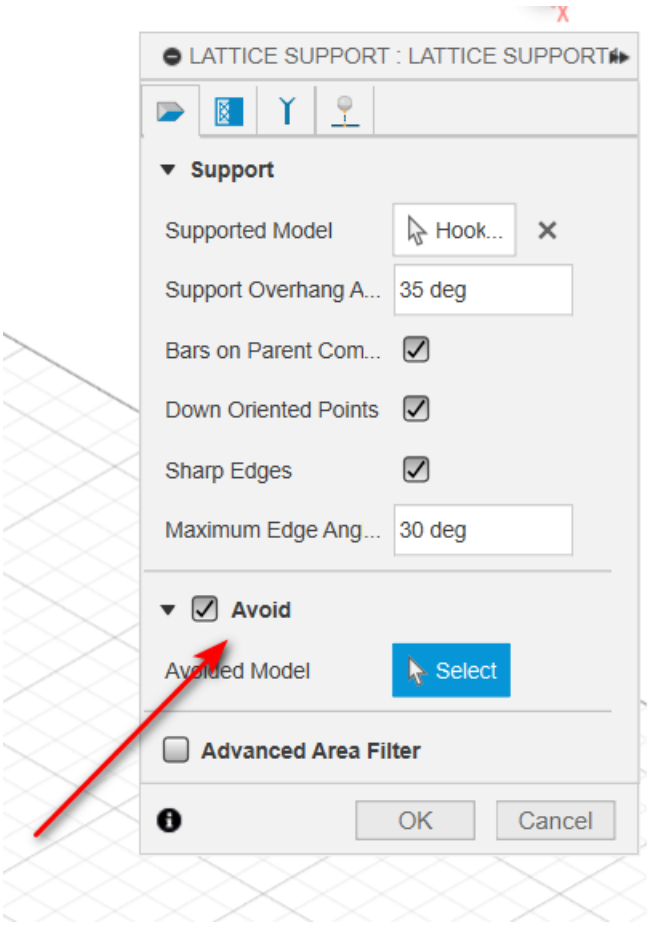
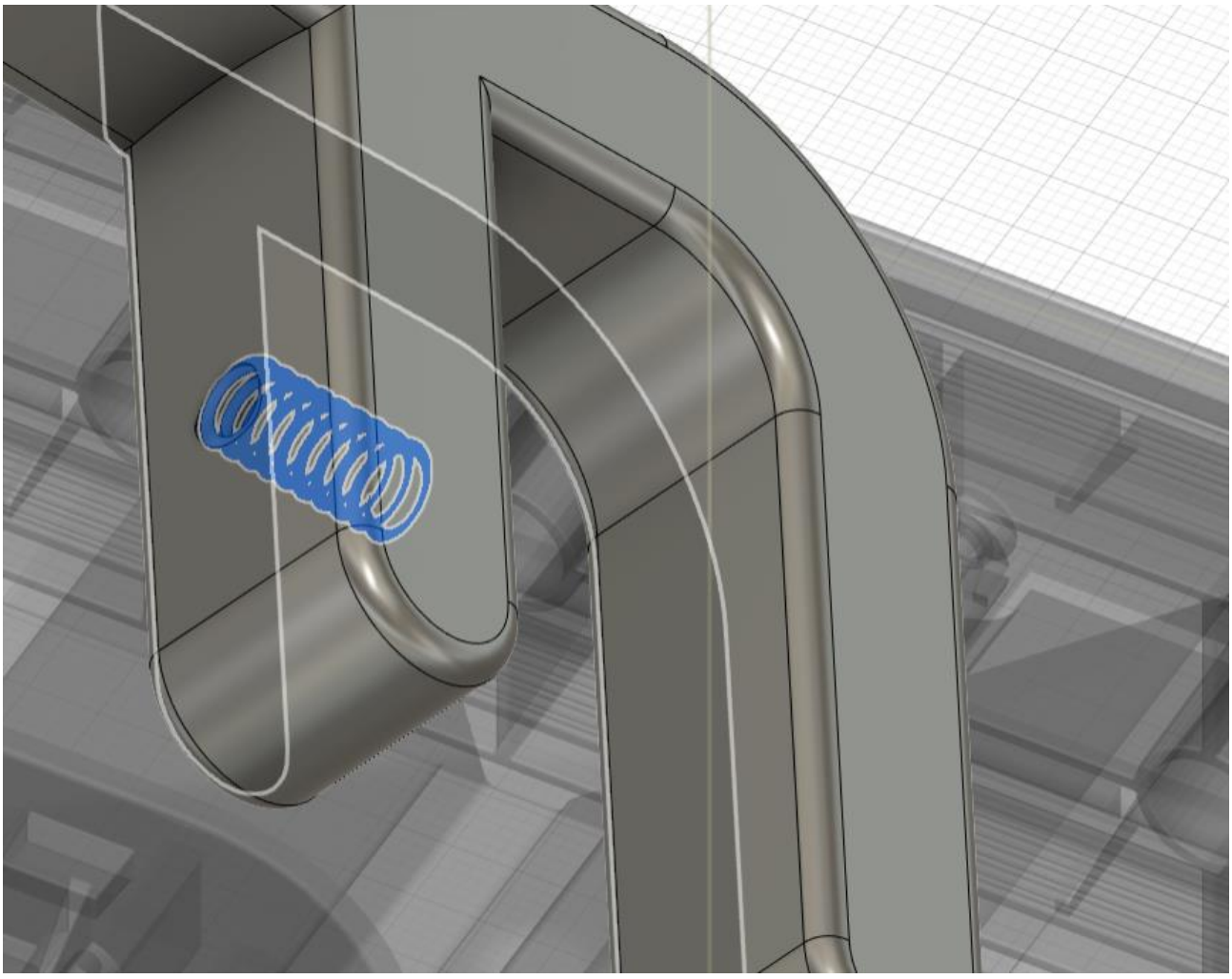
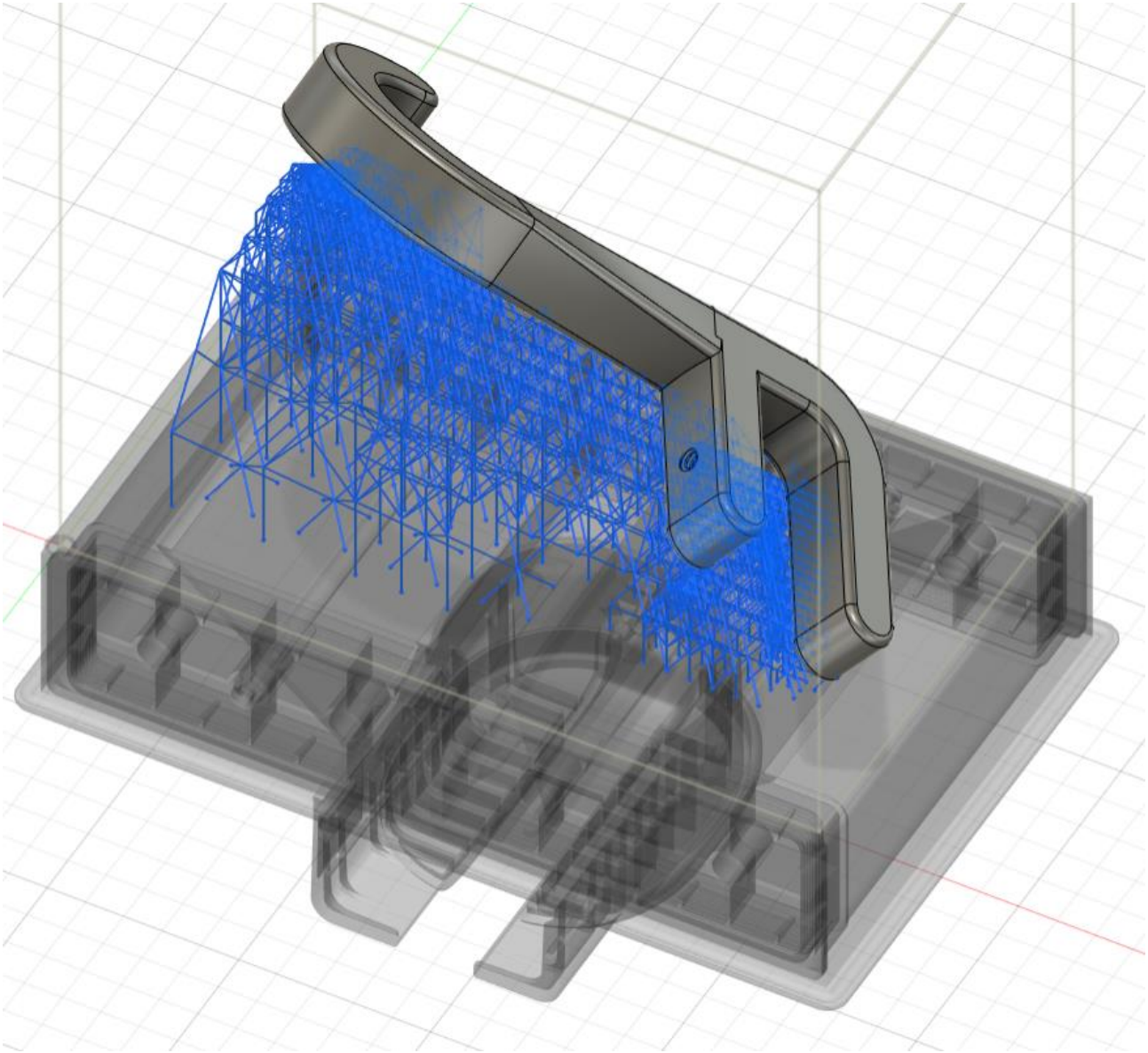
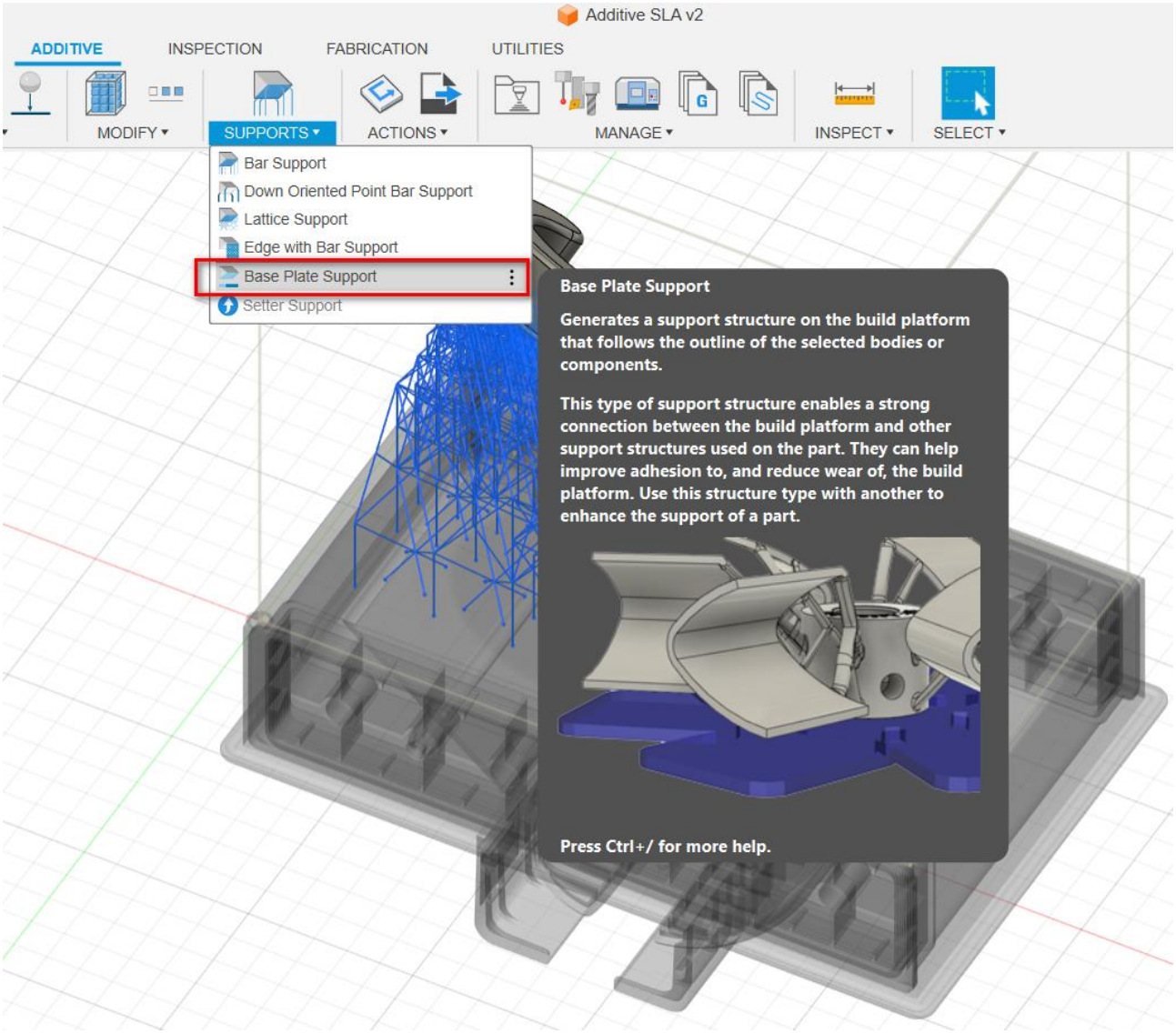
OK
Cancel

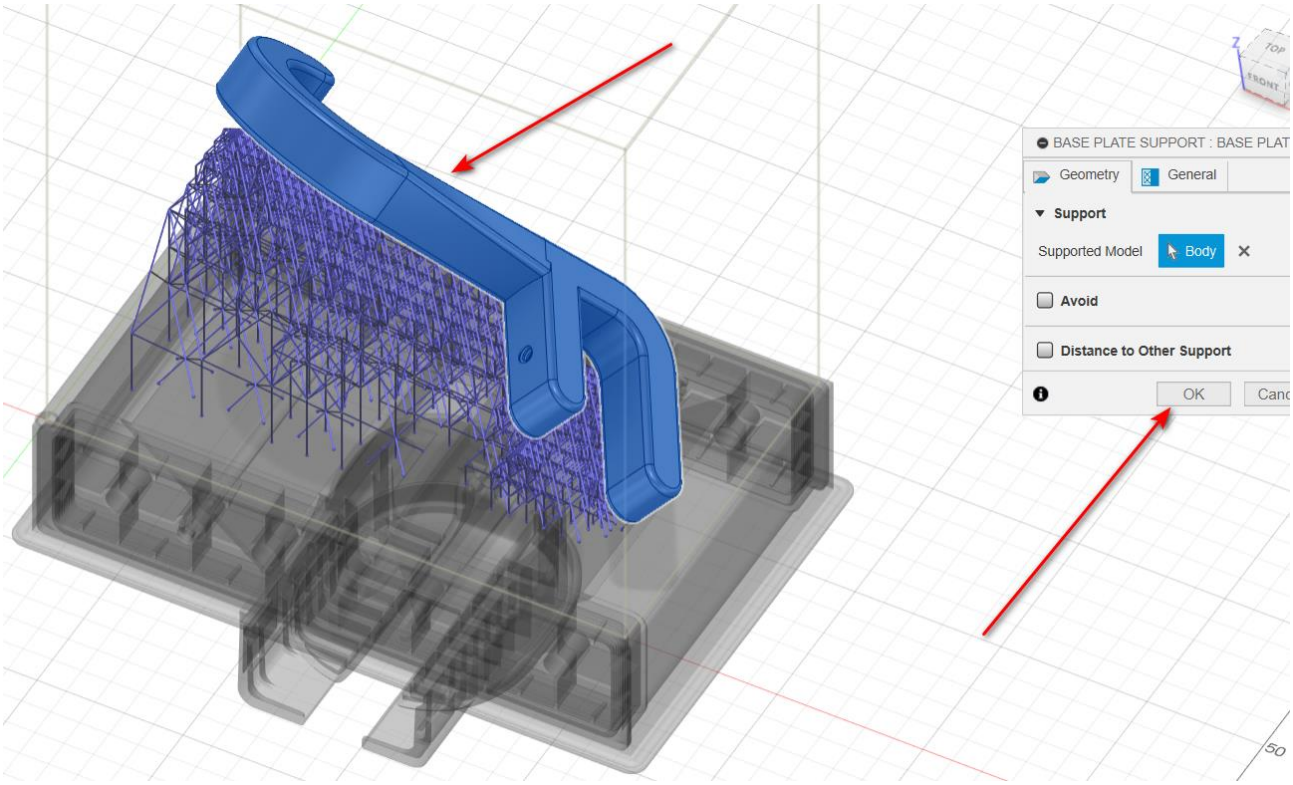



LATTICE SUPPORT : LATTICE SUPPORT
Support
Supported Model
Hook...
Support Overhang A...
35 deg
Bars on Parent Com...
Down Oriented Points
Sharp Edges
Maximum Edge Ang...
30 deg
Avoid
Avoided Model
Select
Advanced Area Filter
OK
Cancel






Additive SLA v2
ADDITIVE
INSPECTION
FABRICATION
UTILITIES
MODIFY
SUPPORTS
ACTIONS
MANAGE
INSPECT
SELECT
Bar Support
Down Oriented Point Bar Support
Lattice Support
Edge with Bar Support
Base Plate Support
Setter Support
Base Plate Support
Generates a support structure on the build platform that follows the outline of the selected bodies or components.
This type of support structure enables a strong connection between the build platform and other support structures used on the part. They can help improve adhesion to, and reduce wear of, the build platform. Use this structure type with another to enhance the support of a part.
Press Ctrl+/ for more help.


BASE PLATE SUPPORT : BASE PLAT
Geometry
General
Support
Supported Model
Body
Avoid
Distance to Other Support
OK
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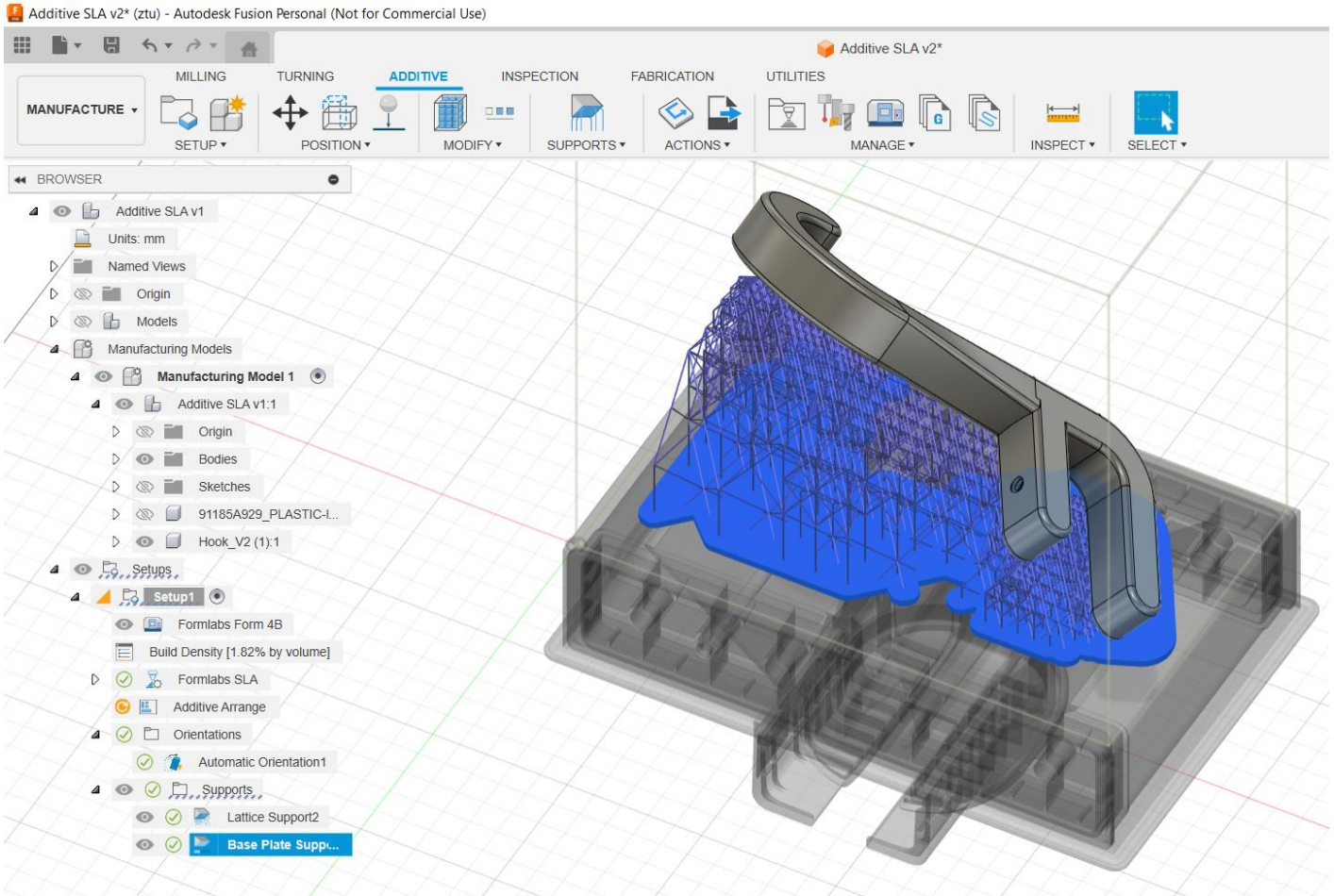
Additive SLA v2* (ztu) - Autodesk Fusion Personal (Not for Commercial Use)
Additive SLA v2*
MILLING
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ADDITIVE
INSPECTION
FABRICATION
UTILITIES
MANUFACTURE
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POSITION
MODIFY
SUPPORTS
ACTIONS
MANAGE
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BROWSER
Additive SLA v1
Units: mm
Named Views
Origin
Models
Manufacturing Models
Manufacturing Model 1
Additive SLA v1:1
Origin
Bodies
Sketches
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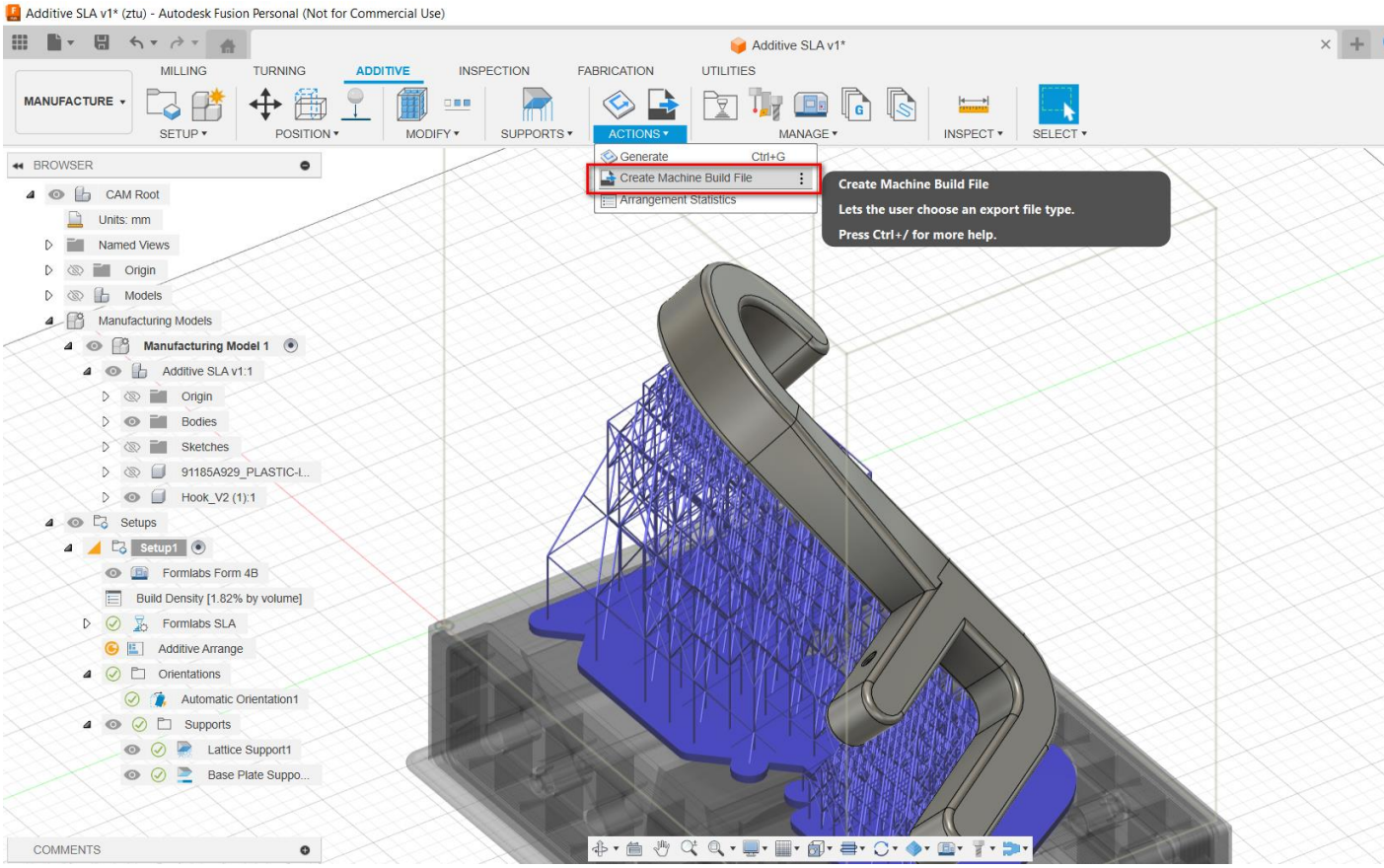
Hook_V2 (1):1
Setups
Setup1
Formlabs Form 4B
Build Density [1.82% by volume]
Formlabs SLA
Additive Arrange
Orientations
Automatic Orientation1
Supports
Lattice Support2
Base Plate Supp...


Additive SLA v1* (ztu) - Autodesk Fusion Personal (Not for Commercial Use)
Additive SLA v1*
MILLING
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FABRICATION
UTILITIES
MANUFACTURE
SETUP
POSITION
MODIFY
SUPPORTS
ACTIONS
MANAGE
INSPECT
SELECT
Generate Ctrl+G
Create Machine Build File
Arrangement Statistics
Create Machine Build File
Lets the user choose an export file type.
Press Ctrl+/ for more help.
BROWSER
CAM Root
Units: mm
Named Views
Origin
Models
Manufacturing Models
Manufacturing Model 1
Additive SLA v1:1
Origin
Bodies
Sketches
91185A929_PLASTIC-l...
Hook_V2 (1):1
Setups
Setup1
Formlabs Form 4B
Build Density [1.82% by volume]
Formlabs SLA
Additive Arrange
Orientations
Automatic Orientation1
Supports
Lattice Support1
Base Plate Suppo...
COMMENTS