

PRIEDAI

Study 7 - Static Stress

Mesh

Average Element Size (% of model size)	
Solids	2
Scale Mesh Size Per Part	Yes
Average Element Size (absolute value)	-
Element Order	Parabolic
Create Curved Mesh Elements	Yes
Max. Turn Angle on Curves (Deg.)	20
Max. Adjacent Mesh Size Ratio	1.5
Max. Aspect Ratio	7
Minimum Element Size (% of average size)	20

Adaptive Mesh Refinement

Number of Refinement Steps	0
Results Convergence Tolerance (%)	20
Portion of Elements to Refine (%)	10
Results for Baseline Accuracy	Von Mises Stress

Materials

Component	Material	Safety Factor
Body8	2. PLA Plastic	Yield Strength
Body12	Steel	Yield Strength
Body14	2. PLA Plastic	Yield Strength
Body16	2. PLA Plastic	Yield Strength

Mesh

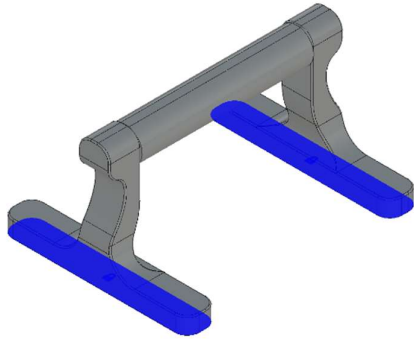
Type	Nodes	Elements
Solids	992204	634507

Constraints

Fixed1

Type	Fixed
Ux	Yes
Uy	Yes
Uz	Yes

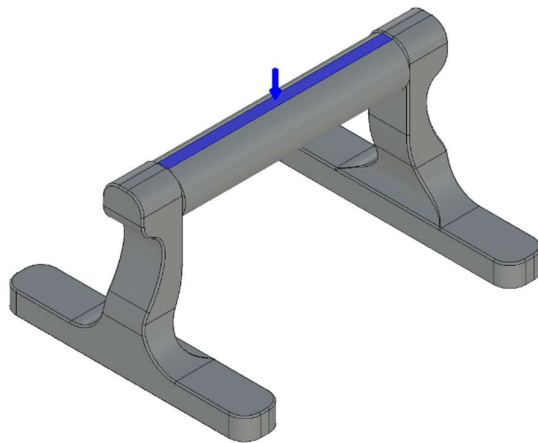
Selected Entities



Force1

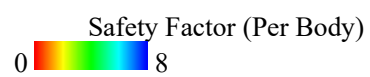
Type	Force
Magnitude	500 N
X Value	0 N
Y Value	-500 N
Z Value	-9.387E-05 N
Force Per Entity	No

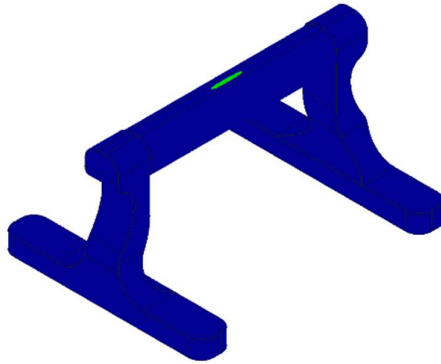
Selected Entities



Result Summary

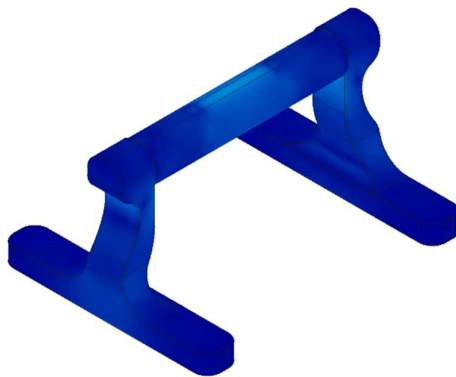
Safety Factor



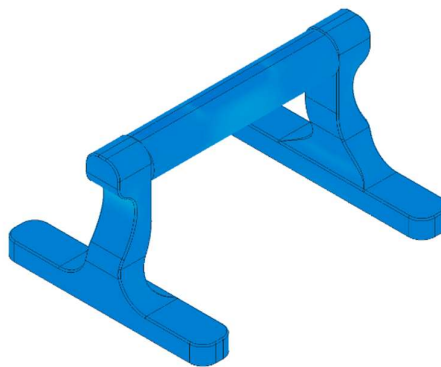


Stress

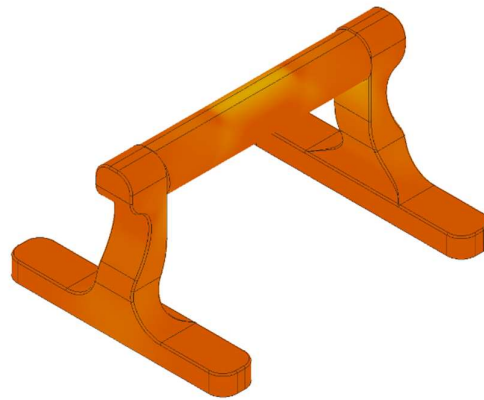
Von Mises
[MPa] 0 54.23



1st Principal
[MPa] -4.59 50.59

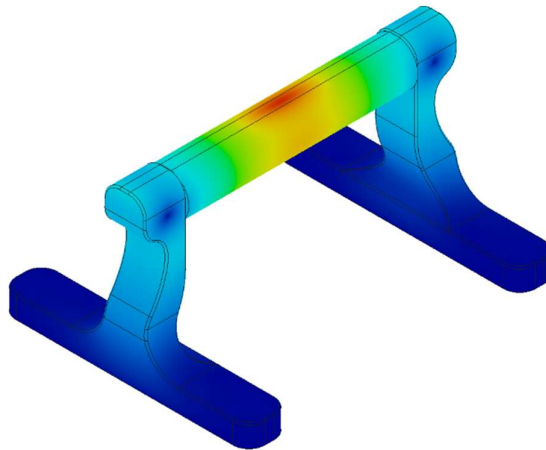


3rd Principal
[MPa] -56.22 2.08



Displacement

Total
[mm] 0 0.2086



Study 9 - Static Stress

Mesh

Average Element Size (% of model size)	
Solids	2
Scale Mesh Size Per Part	Yes
Average Element Size (absolute value)	-
Element Order	Parabolic
Create Curved Mesh Elements	Yes
Max. Turn Angle on Curves (Deg.)	20
Max. Adjacent Mesh Size Ratio	1.5
Max. Aspect Ratio	7
Minimum Element Size (% of average size)	20

Adaptive Mesh Refinement

Number of Refinement Steps	0
Results Convergence Tolerance (%)	20
Portion of Elements to Refine (%)	10
Results for Baseline Accuracy	Von Mises Stress

Materials

Component	Material	Safety Factor
Body8	2. PLA Plastic	Yield Strength
Body12	Steel	Yield Strength
Body14	2. PLA Plastic	Yield Strength
Body16	2. PLA Plastic	Yield Strength

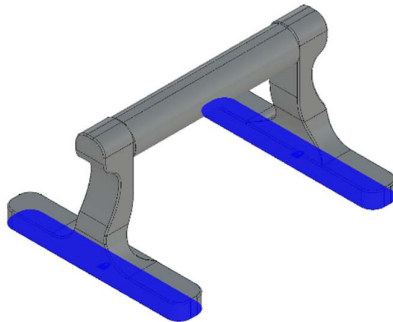
Type	Nodes	Elements
Solids	992204	634507

Constraints

Fixed1

Type	Fixed
Ux	Yes
Uy	Yes
Uz	Yes

Selected Entities

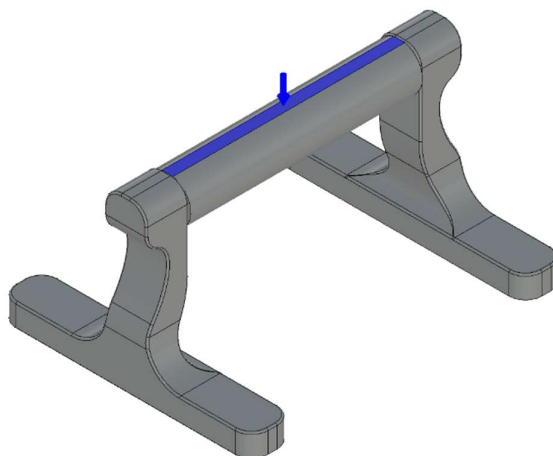


Loads

Force1

Type	Force
Magnitude	1000 N
X Value	0 N
Y Value	-1000 N
Z Value	-1.877E-04 N
Force Per Entity	No

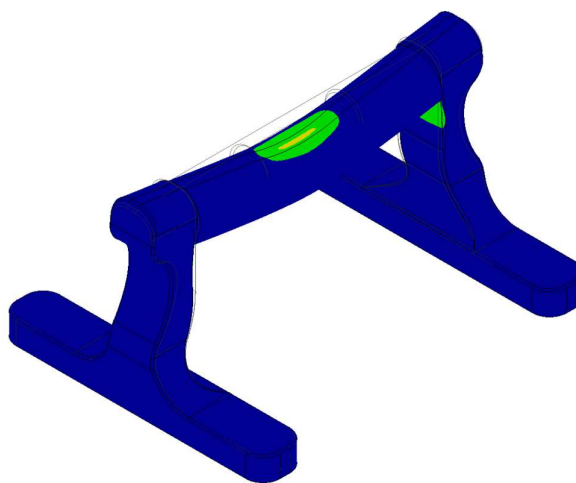
Selected Entities



Result Summary

Safety Factor

Safety Factor (Per Body)
0  8

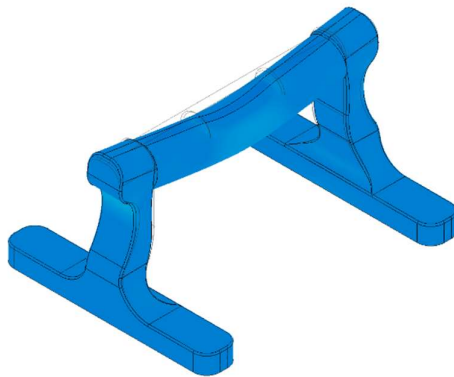


Stress

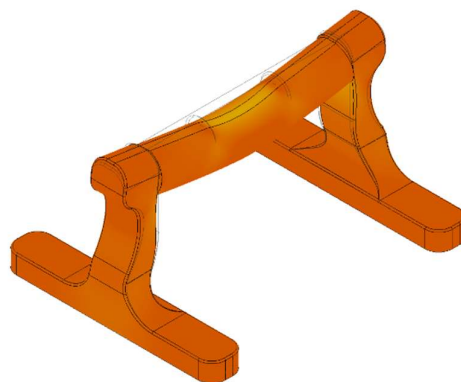
Von Mises
[MPa] 0  108.4



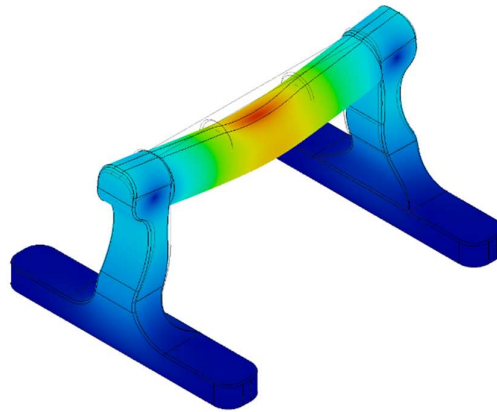
1st Principal
[MPa] -9 101



3rd Principal
[MPa] -112.8 4.1



Displacement
Total
[mm] 0 0.4175



Study 2 - Static Stress

Average Element Size (% of model size)	
Solids	2
Scale Mesh Size Per Part	Yes
Average Element Size (absolute value)	-
Element Order	Parabolic
Create Curved Mesh Elements	Yes
Max. Turn Angle on Curves (Deg.)	20
Max. Adjacent Mesh Size Ratio	1.5
Max. Aspect Ratio	8
Minimum Element Size (% of average size)	20

Adaptive Mesh Refinement

Number of Refinement Steps	4
Results Convergence Tolerance (%)	10
Portion of Elements to Refine (%)	25
Results for Baseline Accuracy	Von Mises Stress

Materials

Component	Material	Safety Factor
House-UCP-201-Kontima UCP 201-Kontima:1	2. PLA Plastic	Yield Strength

Mesh

Type	Nodes	Elements
Solids	1652567	1071470

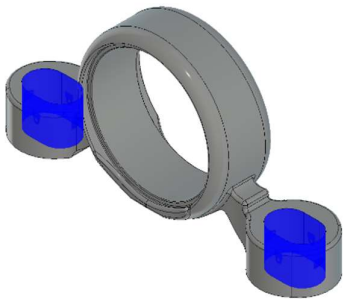
Load Case1

Constraints

Fixed1

Type	Fixed
Ux	Yes
Uy	Yes
Uz	Yes

Selected Entities

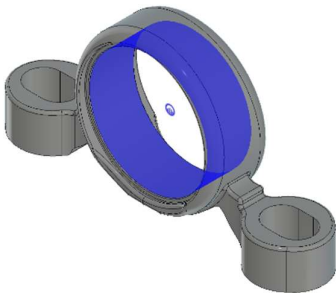


Loads

Bearing Load1

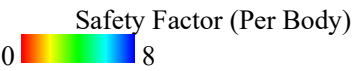
Type	Bearing Load
Magnitude	250 N
X Value	0 N
Y Value	0 N
Z Value	-250 N
A Angle	0 deg

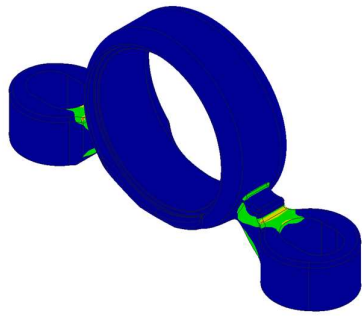
Selected Entities



Results

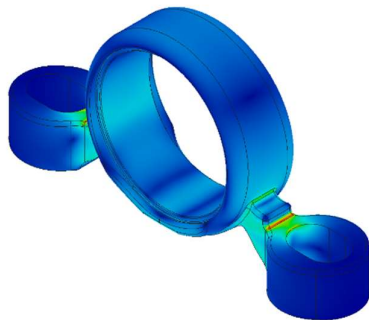
Safety Factor



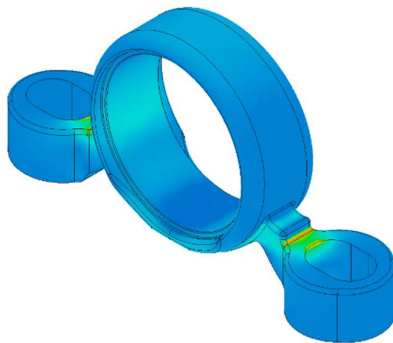


Stress

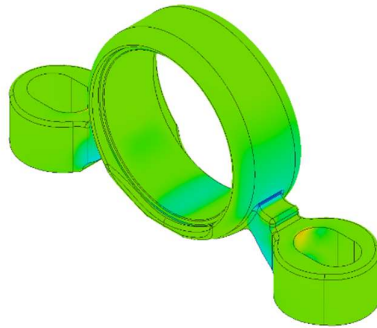
Von Mises
[MPa] 0 17.7



1st Principal
[MPa] -1.99 21.34

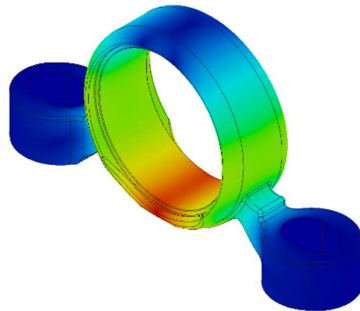


3rd Principal
[MPa] -10.79 8.48



Displacement

Total
[mm] 0  0.5939



Study 7 - Static Stress

Settings

Mesh

Average Element Size (% of model size)	
Solids	2
Scale Mesh Size Per Part	Yes
Average Element Size (absolute value)	-
Element Order	Parabolic
Create Curved Mesh Elements	Yes
Max. Turn Angle on Curves (Deg.)	20
Max. Adjacent Mesh Size Ratio	1.5
Max. Aspect Ratio	8
Minimum Element Size (% of average size)	20

Adaptive Mesh Refinement

Number of Refinement Steps	4
Results Convergence Tolerance (%)	10
Portion of Elements to Refine (%)	25
Results for Baseline Accuracy	Von Mises Stress

Materials

Component	Material	Safety Factor
House-UCP-201-Kontima_UCP 201-Kontima:1	2. PLA Plastic	Yield Strength

Contacts

Mesh

Type	Nodes	Elements
Solids	1652567	1071470

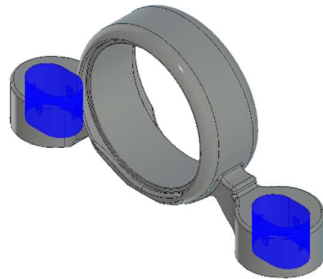
Load Case1

Constraints

Fixed1

Type	Fixed
Ux	Yes
Uy	Yes
Uz	Yes

Selected Entities

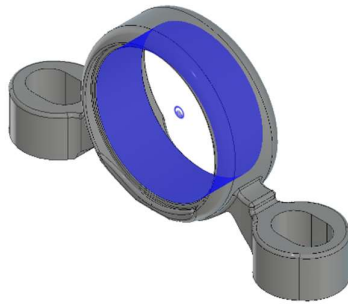


Loads

Bearing Load1

Type	Bearing Load
Magnitude	450 N
X Value	0 N
Y Value	0 N
Z Value	-450 N
A Angle	0 deg

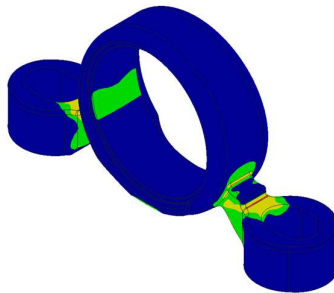
Selected Entities



Results

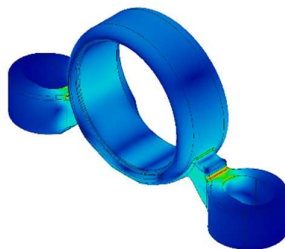
Safety Factor

Safety Factor (Per Body)
0  8

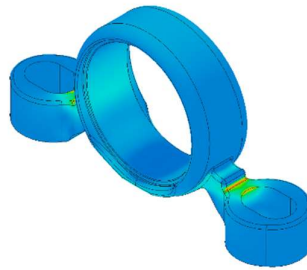


Stress

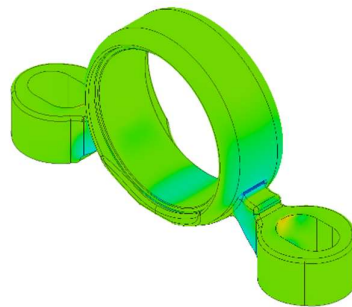
Von Mises
[MPa] 0  31.85



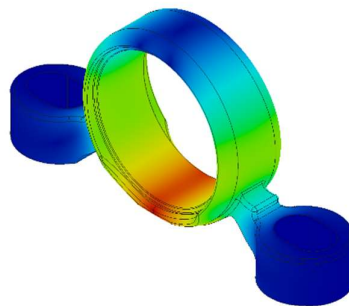
1st Principal
[MPa] -3.58  38.42



3rd Principal
[MPa] -19.42 15.26



Displacement
Total
[mm] 0 1.069



Study 2 - Static Stress

Settings

General

Contact Tolerance	0.1 mm
Remove Rigid Body Modes	No

Mesh

Average Element Size (% of model size)	
Solids	2
Scale Mesh Size Per Part	Yes
Average Element Size (absolute value)	-
Element Order	Parabolic
Create Curved Mesh Elements	Yes
Max. Turn Angle on Curves (Deg.)	20
Max. Adjacent Mesh Size Ratio	1.5
Max. Aspect Ratio	8
Minimum Element Size (% of average size)	20

Adaptive Mesh Refinement

Number of Refinement Steps	4
Results Convergence Tolerance (%)	10
Portion of Elements to Refine (%)	25
Results for Baseline Accuracy	Von Mises Stress

Materials

Component	Material	Safety Factor
House-UCP-201-Kontima UCP 201-Kontima:1	1. PETG Plastic pagal nustatymus	Yield Strength

Mesh

Type	Nodes	Elements
Solids	1652567	1071470

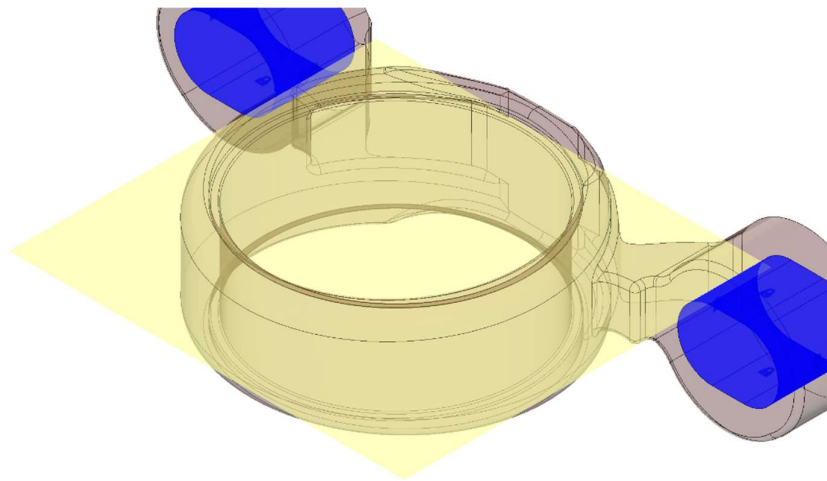
Load Case1

Constraints

Fixed1

Type	Fixed
Ux	Yes
Uy	Yes
Uz	Yes

Selected Entities

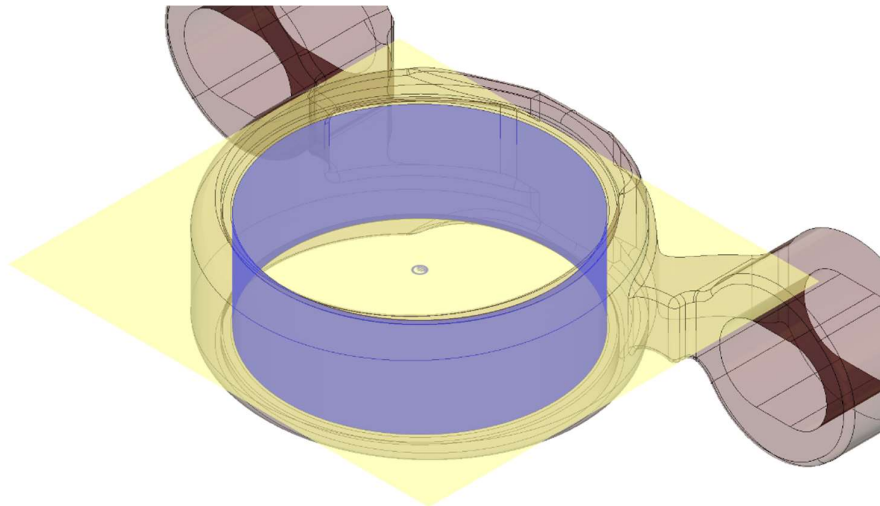


Loads

Bearing Load1

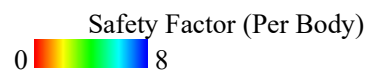
Type	Bearing Load
Magnitude	250 N
X Value	0 N
Y Value	0 N
Z Value	-250 N
A Angle	0 deg

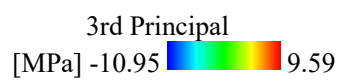
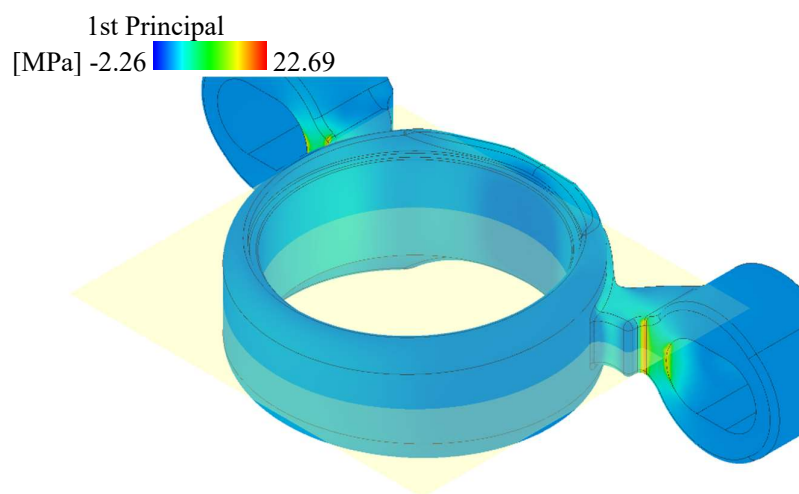
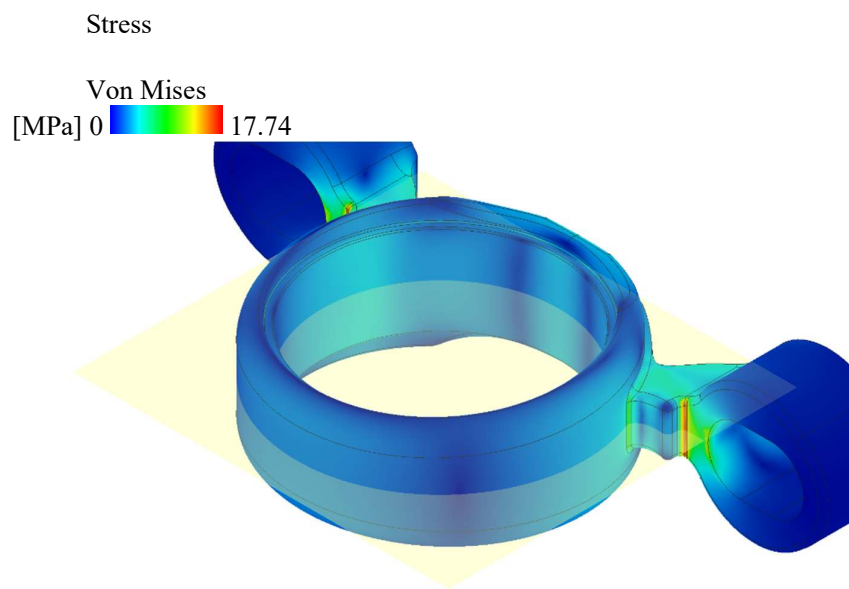
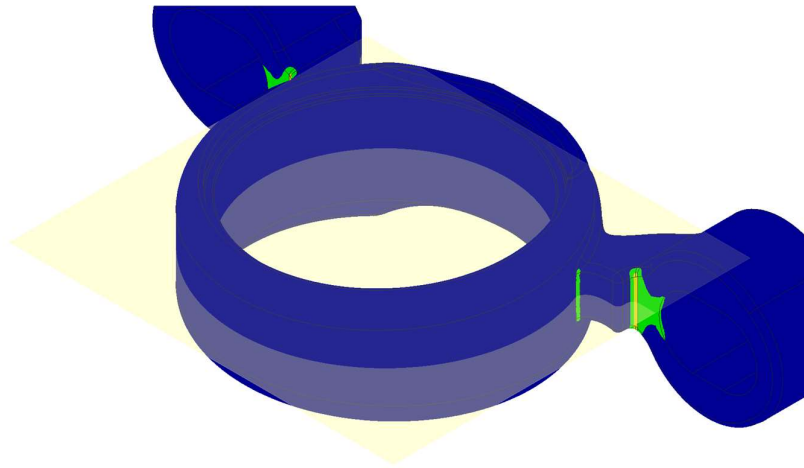
Selected Entities

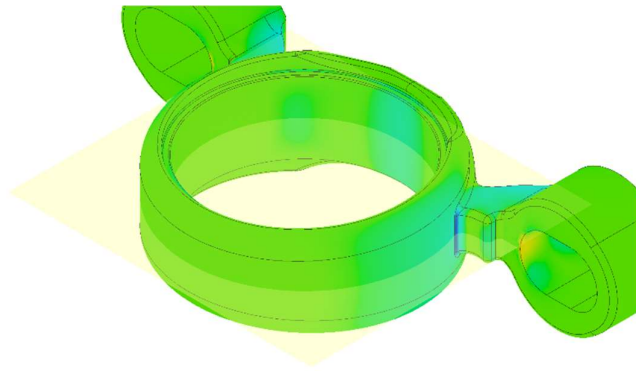


Results

Safety Factor

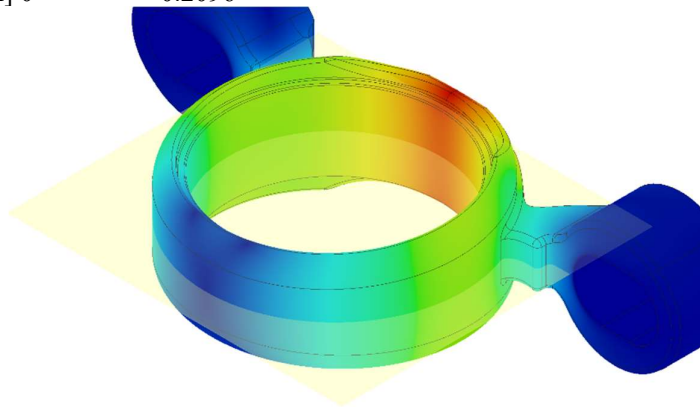






Displacement

Total
[mm] 0 0.2096



Study 7 - Static Stress

Settings

General

Contact Tolerance	0.1 mm
Remove Rigid Body Modes	No

Mesh

Average Element Size (% of model size)	
Solids	2
Scale Mesh Size Per Part	Yes
Average Element Size (absolute value)	-
Element Order	Parabolic
Create Curved Mesh Elements	Yes
Max. Turn Angle on Curves (Deg.)	20
Max. Adjacent Mesh Size Ratio	1.5
Max. Aspect Ratio	8
Minimum Element Size (% of average size)	20

Adaptive Mesh Refinement

Number of Refinement Steps	4
Results Convergence Tolerance (%)	10
Portion of Elements to Refine (%)	25
Results for Baseline Accuracy	Von Mises Stress

Materials

Component	Material	Safety Factor
House-UCP-201-Kontima_UCP 201-Kontima:1	1. PETG Plastic pagal nustatymus	Yield Strength

Contacts

Mesh

Type	Nodes	Elements
Solids	1652567	1071470

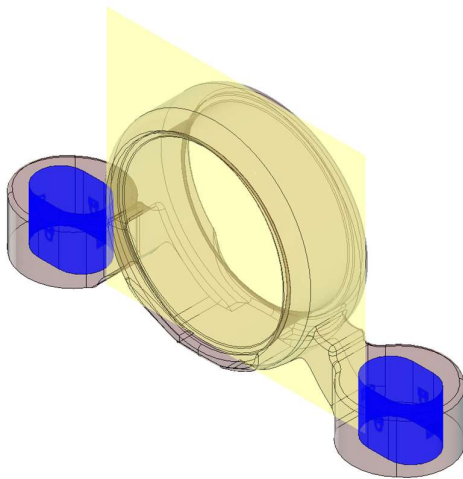
Load Case1

Constraints

Fixed1

Type	Fixed
Ux	Yes
Uy	Yes
Uz	Yes

Selected Entities

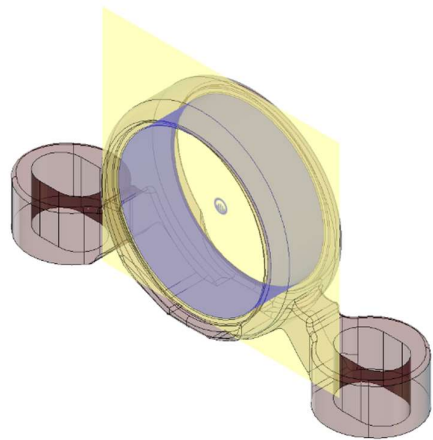


Loads

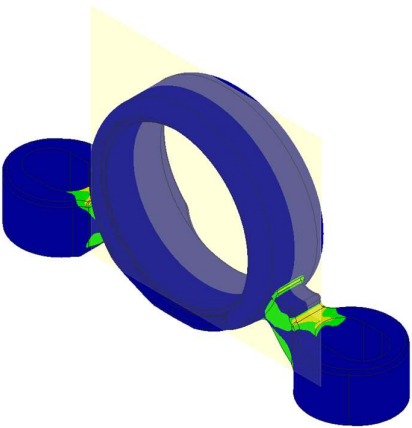
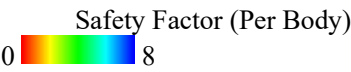
Bearing Load1

Type	Bearing Load
Magnitude	450 N
X Value	0 N
Y Value	0 N
Z Value	-450 N
A Angle	0 deg

Selected Entities

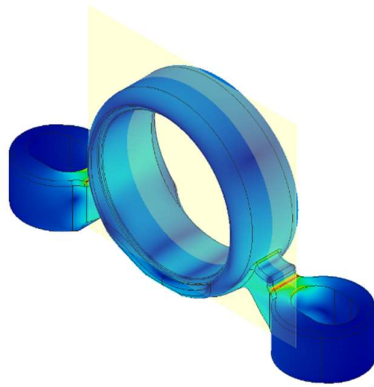


Results

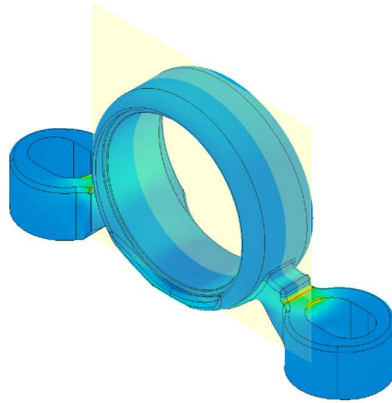


Stress

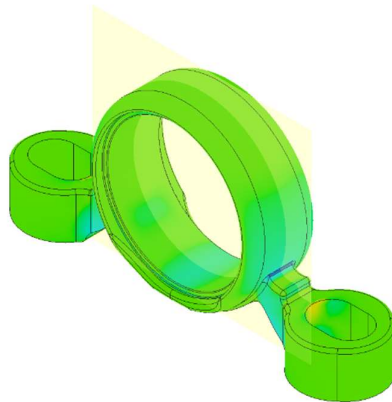




1st Principal
[MPa] -4.06 40.83

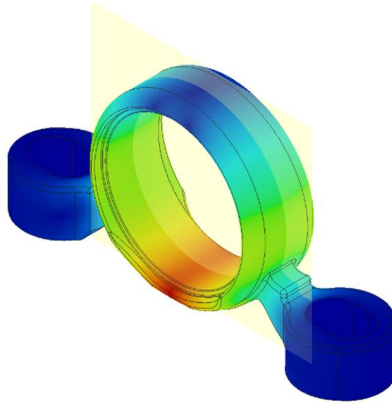


3rd Principal
[MPa] -19.72 17.27



Displacement

Total
[mm] 0 0.3773



Study 2 - Static Stress

Settings

General

Contact Tolerance	0.1 mm
Remove Rigid Body Modes	No

Mesh

Average Element Size (% of model size)	
Solids	2
Scale Mesh Size Per Part	Yes
Average Element Size (absolute value)	-
Element Order	Parabolic
Create Curved Mesh Elements	Yes
Max. Turn Angle on Curves (Deg.)	20
Max. Adjacent Mesh Size Ratio	1.5
Max. Aspect Ratio	8
Minimum Element Size (% of average size)	20

Adaptive Mesh Refinement

Number of Refinement Steps	4
Results Convergence Tolerance (%)	10
Portion of Elements to Refine (%)	25
Results for Baseline Accuracy	Von Mises Stress

Materials

Component	Material	Safety Factor
House-UCP-201-Kontima_UCP 201-Kontima:1	ABS Plastic pagal nustatymus	Yield Strength

Contacts

Mesh

Type	Nodes	Elements
Solids	1646925	1067364

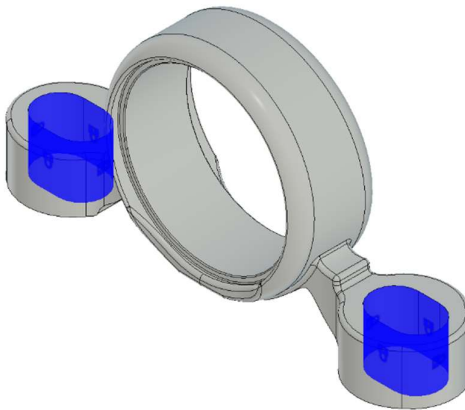
Load Case1

Constraints

Fixed1

Type	Fixed
Ux	Yes
Uy	Yes
Uz	Yes

Selected Entities

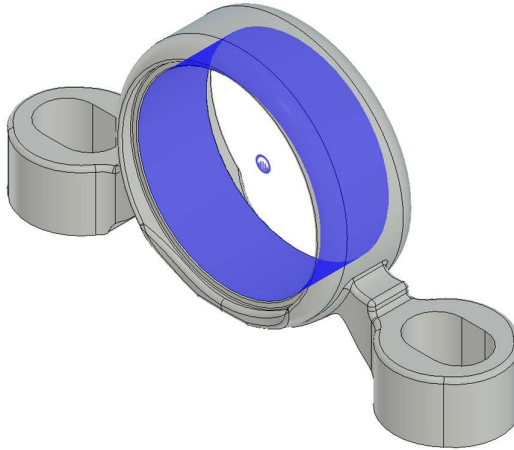


Loads

Bearing Load1

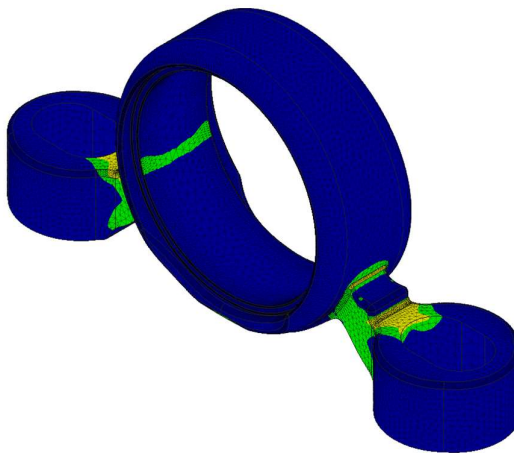
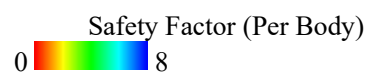
Type	Bearing Load
Magnitude	250 N
X Value	0 N
Y Value	0 N
Z Value	-250 N
A Angle	0 deg

Selected Entities



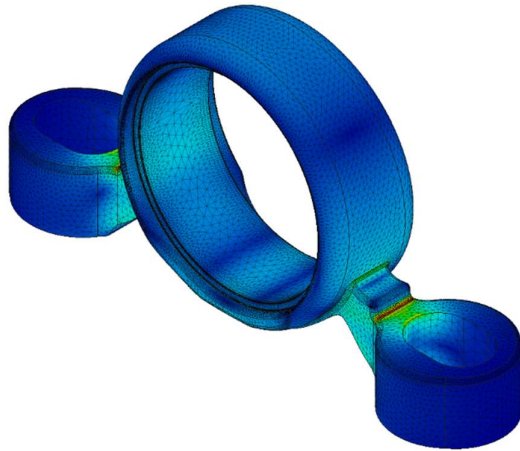
Results

Safety Factor

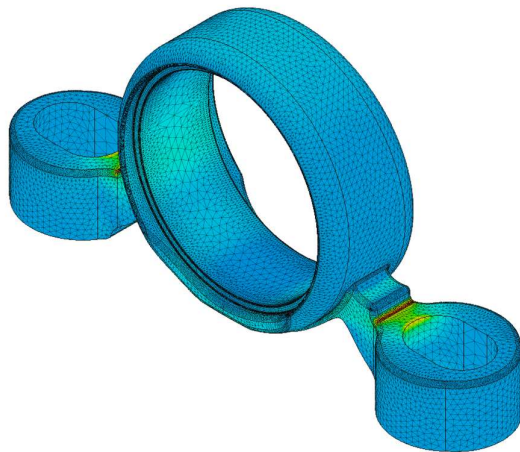


Stress

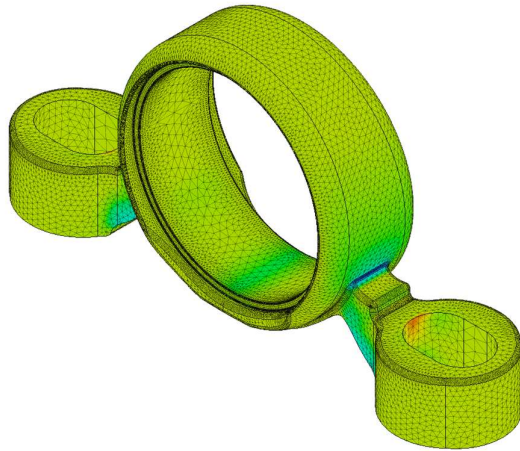




1st Principal
[MPa] -2.69 19.91

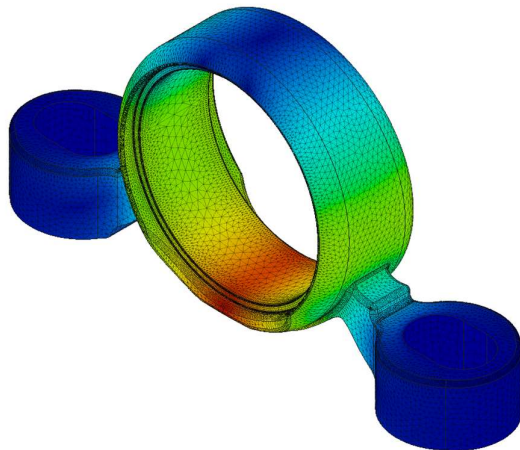


3rd Principal
[MPa] -10.58 5.28



Displacement

Total
[mm] 0  0.2032



Study 7 - Static Stress

Settings

General

Contact Tolerance	0.1 mm
Remove Rigid Body Modes	No



Mesh

Average Element Size (% of model size)	
Solids	2
Scale Mesh Size Per Part	Yes
Average Element Size (absolute value)	-
Element Order	Parabolic
Create Curved Mesh Elements	Yes
Max. Turn Angle on Curves (Deg.)	20
Max. Adjacent Mesh Size Ratio	1.5
Max. Aspect Ratio	8
Minimum Element Size (% of average size)	20

Adaptive Mesh Refinement

Number of Refinement Steps	4
Results Convergence Tolerance (%)	10
Portion of Elements to Refine (%)	25
Results for Baseline Accuracy	Von Mises Stress

Materials

Component	Material	Safety Factor
House-UCP-201-Kontima_UCP 201-Kontima:1	ABS Plastic pagal nustatymus	Yield Strength

Contacts

Mesh

Type	Nodes	Elements
Solids	1646925	1067364

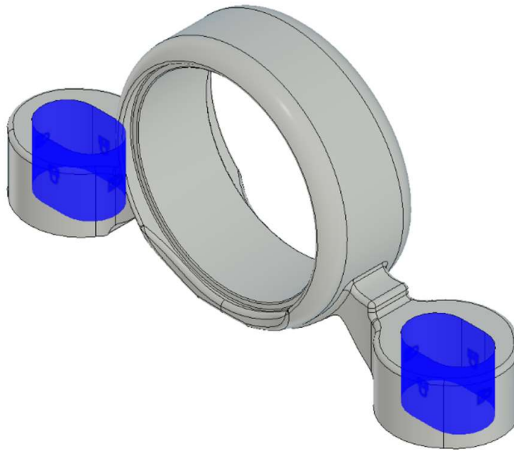
Load Case1

Constraints

Fixed1

Type	Fixed
Ux	Yes
Uy	Yes
Uz	Yes

Selected Entities

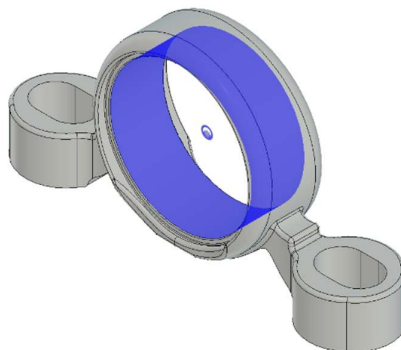


Loads

Bearing Load1

Type	Bearing Load
Magnitude	450 N
X Value	0 N
Y Value	0 N
Z Value	-450 N
A Angle	0 deg

Selected Entities

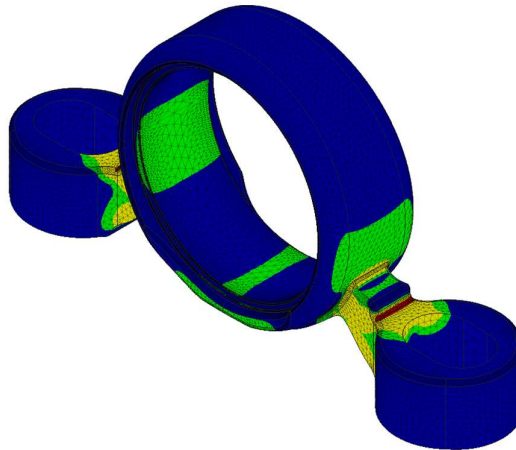


Results

Safety Factor

Safety Factor (Per Body)

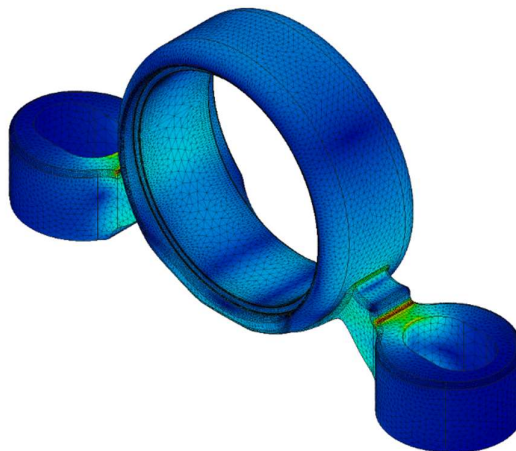
0 8



Stress

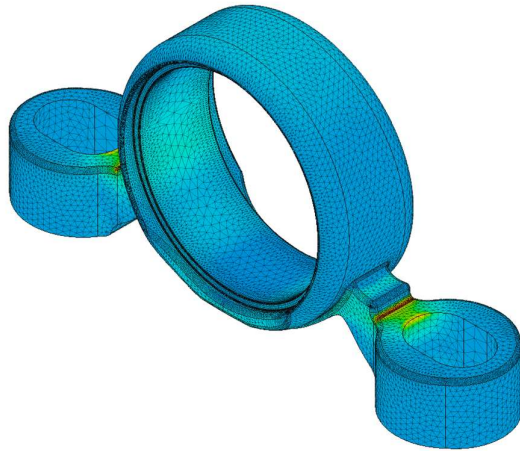
Von Mises

[MPa] 0 32.03

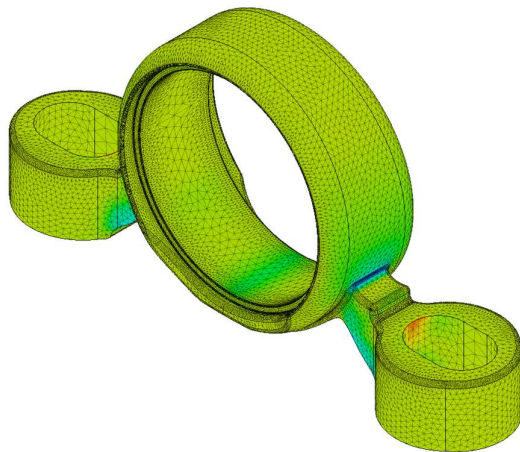


1st Principal

[MPa] -4.83 35.84



3rd Principal
[MPa] -19.04 9.5



Displacement
Total
[mm] 0 0.3658

