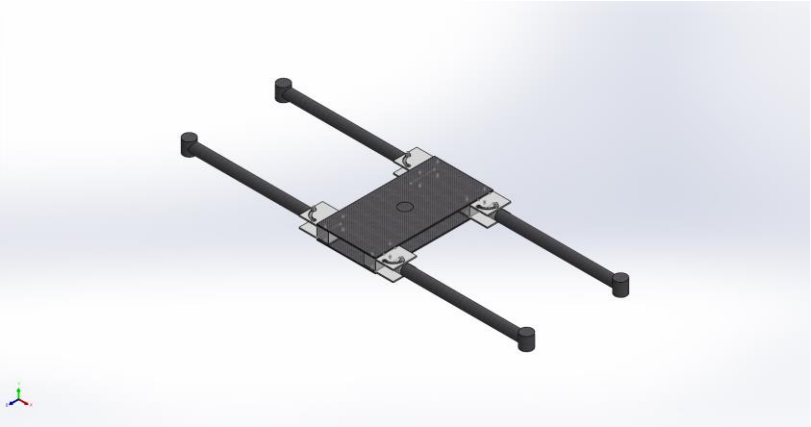


Simulation of drone assembly

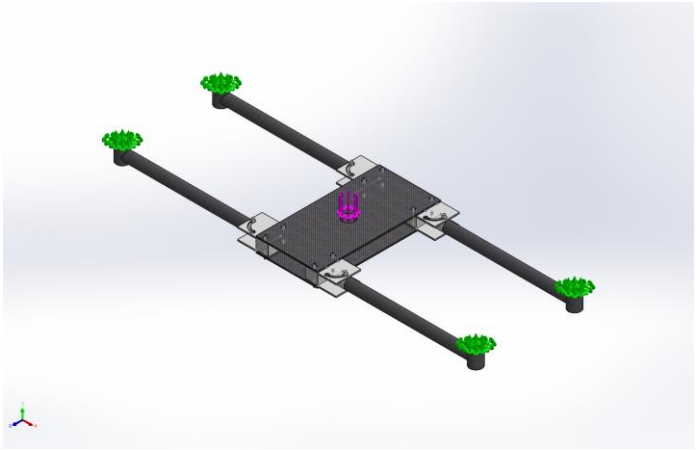
Date: 20 June 2021
Designer: Jayaditya Tenampet
Study name: Static 1
Analysis type: Static

Table of Contents

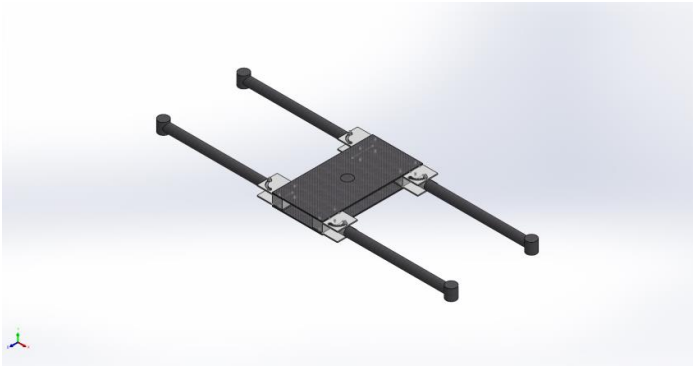
Description

FEA of drone in solidworks simulation

Assumptions

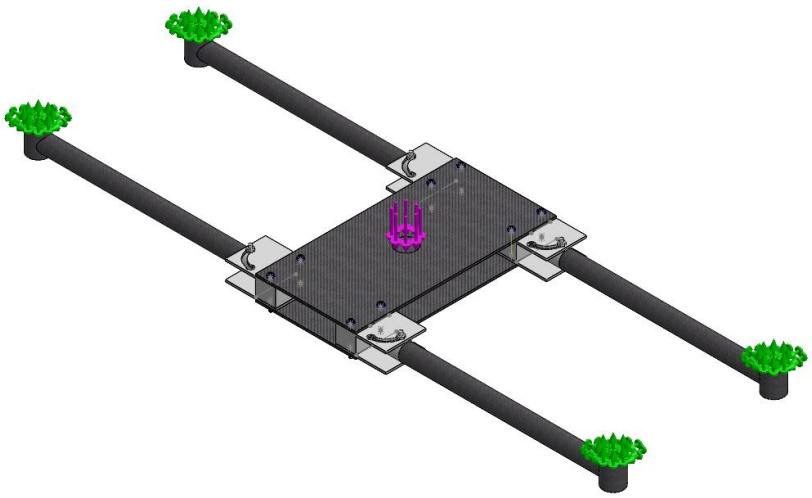


Original Model



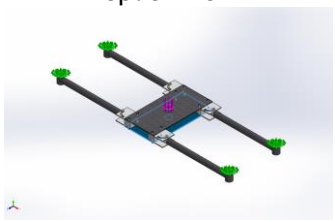
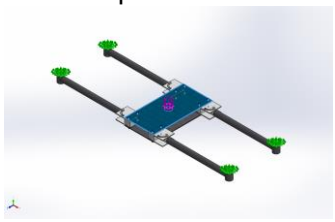
Model Analyzed

Model Information



Model name: drone assembly
Current Configuration: Default

Solid Bodies

Document Name and Reference	Treated As	Volumetric Properties	Document Path/Date Modified
Split Line1 	Solid Body	**Mass:0.063819 kg Volume:3.98869e-05 m^3 Density:1,600 kg/m^3 Weight:0.625427 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 3 drone\solidworks files\carbon fibre plate.SLDPRT** Jun 20 03:40:20 2021
Split Line1 	Solid Body	**Mass:0.063819 kg Volume:3.98869e-05 m^3 Density:1,600 kg/m^3 Weight:0.625427 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 3 drone\solidworks files\carbon fibre plate.SLDPRT** Jun 20 03:40:20 2021

Ø3.0mm Dowel Hole1	Solid Body	**Mass:0.0172589 kg Volume:1.69205e-05 m^3 Density:1,020 kg/m^3 Weight:0.169137 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\folding mechanism part 1 left.SLDPRT** Jun 20 01:17:53 2021
Ø3.0mm Dowel Hole1	Solid Body	**Mass:0.00405116 kg Volume:3.97173e-06 m^3 Density:1,020 kg/m^3 Weight:0.0397014 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\folding mechanism part 2 left.SLDPRT** Jun 20 01:19:45 2021
Boss-Extrude3	Solid Body	**Mass:0.0079106 kg Volume:7.75549e-06 m^3 Density:1,020 kg/m^3 Weight:0.0775239 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\folding mechanism part 3.SLDPRT** Jun 20 01:20:56 2021
Boss-Extrude3	Solid Body	**Mass:0.0263719 kg Volume:1.64824e-05 m^3 Density:1,600 kg/m^3 Weight:0.258444 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\hollow arm.SLDPRT** Jun 20 01:21:37 2021
Mirror1	Solid Body	**Mass:5.78956e-05 kg Volume:5.67604e-08 m^3 Density:1,020 kg/m^3 Weight:0.000567377 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\nut.SLDPRT** Jun 20 01:22:06 2021

Ø3.0mm Dowel Hole1	Solid Body	**Mass:0.0172589 kg Volume:1.69205e-05 m^3 Density:1,020 kg/m^3 Weight:0.169137 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\folding mechanism part 1 left.SLDPRT** Jun 20 01:17:53 2021
Ø3.0mm Dowel Hole1	Solid Body	**Mass:0.00405116 kg Volume:3.97173e-06 m^3 Density:1,020 kg/m^3 Weight:0.0397014 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\folding mechanism part 2 left.SLDPRT** Jun 20 01:19:45 2021
Boss-Extrude3	Solid Body	**Mass:0.0079106 kg Volume:7.75549e-06 m^3 Density:1,020 kg/m^3 Weight:0.0775239 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\folding mechanism part 3.SLDPRT** Jun 20 01:20:56 2021
Boss-Extrude3	Solid Body	**Mass:0.0263719 kg Volume:1.64824e-05 m^3 Density:1,600 kg/m^3 Weight:0.258444 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\hollow arm.SLDPRT** Jun 20 01:21:37 2021
Mirror1	Solid Body	**Mass:5.78956e-05 kg Volume:5.67604e-08 m^3 Density:1,020 kg/m^3 Weight:0.000567377 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\nut.SLDPRT** Jun 20 01:22:06 2021

Ø3.0mm Dowel Hole1	Solid Body	**Mass:0.0172606 kg Volume:1.69222e-05 m^3 Density:1,020 kg/m^3 Weight:0.169154 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\folding mechanism part 1 right.SLDPRT** Jun 20 01:19:04 2021
Ø3.0mm Dowel Hole1	Solid Body	**Mass:0.00405116 kg Volume:3.97173e-06 m^3 Density:1,020 kg/m^3 Weight:0.0397014 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\folding mechanism part 2 right.SLDPRT** Jun 20 01:20:19 2021
Boss-Extrude3	Solid Body	**Mass:0.0079106 kg Volume:7.75549e-06 m^3 Density:1,020 kg/m^3 Weight:0.0775239 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\folding mechanism part 3.SLDPRT** Jun 20 01:20:56 2021
Boss-Extrude3	Solid Body	**Mass:0.0263719 kg Volume:1.64824e-05 m^3 Density:1,600 kg/m^3 Weight:0.258444 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\hollow arm.SLDPRT** Jun 20 01:21:37 2021
Mirror1	Solid Body	**Mass:5.78956e-05 kg Volume:5.67604e-08 m^3 Density:1,020 kg/m^3 Weight:0.000567377 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\nut.SLDPRT** Jun 20 01:22:06 2021

Ø3.0mm Dowel Hole1	Solid Body	**Mass:0.0172606 kg Volume:1.69222e-05 m^3 Density:1,020 kg/m^3 Weight:0.169154 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\folding mechanism part 1 right.SLDPRT** Jun 20 01:19:04 2021
Ø3.0mm Dowel Hole1	Solid Body	**Mass:0.00405116 kg Volume:3.97173e-06 m^3 Density:1,020 kg/m^3 Weight:0.0397014 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\folding mechanism part 2 right.SLDPRT** Jun 20 01:20:19 2021
Boss-Extrude3	Solid Body	**Mass:0.0079106 kg Volume:7.75549e-06 m^3 Density:1,020 kg/m^3 Weight:0.0775239 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\folding mechanism part 3.SLDPRT** Jun 20 01:20:56 2021
Boss-Extrude3	Solid Body	**Mass:0.0263719 kg Volume:1.64824e-05 m^3 Density:1,600 kg/m^3 Weight:0.258444 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\hollow arm.SLDPRT** Jun 20 01:21:37 2021
Mirror1	Solid Body	**Mass:5.78956e-05 kg Volume:5.67604e-08 m^3 Density:1,020 kg/m^3 Weight:0.000567377 N**	**C:\Users\Jayaditya\solidworks\mechanical engineering tasks(Jayaditya Tenampet)\question 2 foldable arm mechanism\solidworks files\nut.SLDPRT** Jun 20 01:22:06 2021

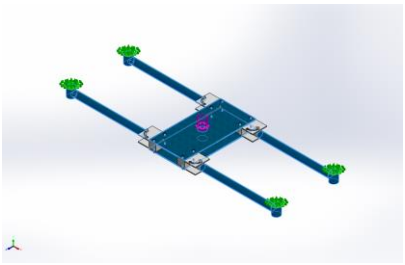
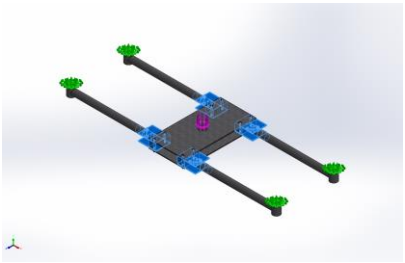
Study Properties

Study name	Static 1
Analysis type	Static
Mesh type	Solid Mesh
Thermal Effect:	On
Thermal option	Include temperature loads
Zero strain temperature	298 Kelvin
Include fluid pressure effects from SOLIDWORKS Flow Simulation	Off
Solver type	FFEPlus
Inplane Effect:	Off
Soft Spring:	Off
Inertial Relief:	Off
Incompatible bonding options	Automatic
Large displacement	Off
Compute free body forces	On
Friction	Off
Use Adaptive Method:	Off
Result folder	SOLIDWORKS document (C:\Users\Jayaditya\solidworks\cache)

Units

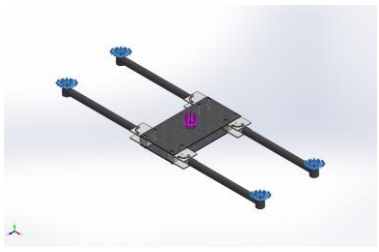
Unit system:	SI (MKS)
Length/Displacement	mm
Temperature	Kelvin
Angular velocity	Rad/sec
Pressure/Stress	N/m^2

Material Properties

Model Reference	Properties	Components
	**Name:** custom standard carbon fiber **Model type:** Linear Elastic Isotropic **Default failure criterion:** Unknown **Yield strength:** 6.05e+10 N/m^2 **Tensile strength:** 6e+08 N/m^2 **Compressive strength:** 5.7e+08 N/m^2 **Elastic modulus:** 7e+10 N/m^2 **Poisson's ratio:** 0.1 **Mass density:** 1,600 kg/m^3 **Shear modulus:** 5e+09 N/m^2	SolidBody 1(Split Line1)(carbon fibre plate-1), SolidBody 1(Split Line1)(carbon fibre plate-2), SolidBody 1(Boss-Extrude3)(folding mechanism assembly left-1/hollow arm-1), SolidBody 1(Boss-Extrude3)(folding mechanism assembly left-4/hollow arm-1), SolidBody 1(Boss-Extrude3)(folding mechanism assembly right-1/hollow arm-1), SolidBody 1(Boss-Extrude3)(folding mechanism assembly right-2/hollow arm-1)
Curve Data:N/A		
	**Name:** ABS **Model type:** Linear Elastic Isotropic **Default failure criterion:** Unknown **Tensile strength:** 3e+07 N/m^2 **Elastic modulus:** 2e+09 N/m^2 **Poisson's ratio:** 0.394 **Mass density:** 1,020 kg/m^3 **Shear modulus:** 3.189e+08 N/m^2	SolidBody 1(Ø3.0mm Dowel Hole1)(folding mechanism assembly left-1/folding mechanism part 1 left-1), SolidBody 1(Ø3.0mm Dowel Hole1)(folding mechanism assembly left-1/folding mechanism part 2 left-1), SolidBody 1(Boss-Extrude3)(folding mechanism assembly left-1/folding mechanism part 3-1), SolidBody 1(Mirror1)(folding mechanism assembly left-1/nut-1), SolidBody 1(Ø3.0mm Dowel Hole1)(folding mechanism assembly left-4/folding mechanism part 1 left-1), SolidBody 1(Ø3.0mm Dowel Hole1)(folding mechanism assembly left-4/folding mechanism part 2 left-1),

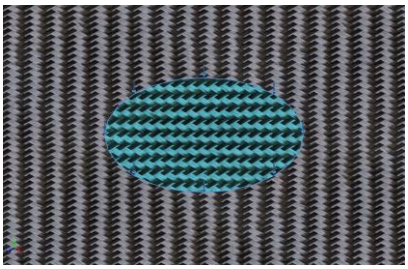
		SolidBody 1(Boss-Extrude3)(folding mechanism assembly left-4/folding mechanism part 3-1), SolidBody 1(Mirror1)(folding mechanism assembly left-4/nut-1), SolidBody 1(Ø3.0mm Dowel Hole1)(folding mechanism assembly right-1/folding mechanism part 1 right-1), SolidBody 1(Ø3.0mm Dowel Hole1)(folding mechanism assembly right-1/folding mechanism part 2 right-1), SolidBody 1(Boss-Extrude3)(folding mechanism assembly right-1/folding mechanism part 3-1), SolidBody 1(Mirror1)(folding mechanism assembly right-1/nut-1), SolidBody 1(Ø3.0mm Dowel Hole1)(folding mechanism assembly right-2/folding mechanism part 1 right-1), SolidBody 1(Ø3.0mm Dowel Hole1)(folding mechanism assembly right-2/folding mechanism part 2 right-1), SolidBody 1(Boss-Extrude3)(folding mechanism assembly right-2/folding mechanism part 3-1), SolidBody 1(Mirror1)(folding mechanism assembly right-2/nut-1)
Curve Data:N/A		

Loads and Fixtures

Fixture name	Fixture Image	Fixture Details
Fixed-1		**Entities:** 4 face(s) **Type:** Fixed Geometry

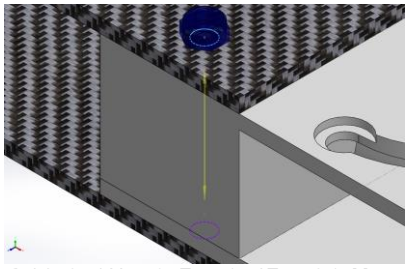
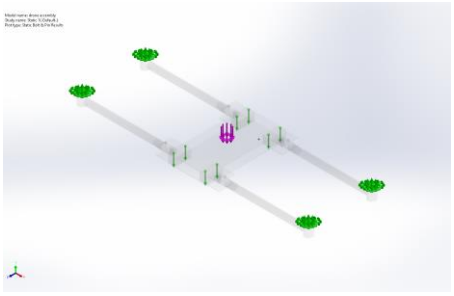
Resultant Forces

Components	X	Y	Z	Resultant
Reaction force(N)	-7.86781e-06	40	2.98023e-07	40
Reaction Moment(N.m)	0	0	0	0

Load name	Load Image	Load Details
Force-1		**Entities:** 1 face(s) **Type:** Apply normal force **Value:** 40 N

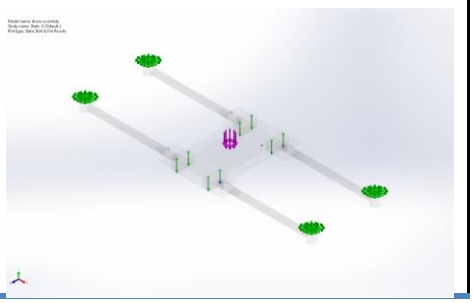
Connector Definitions

Pin/Bolt/Bearing Connector

Model Reference	Connector Details	Strength Details
 B18.3.1M - 2.5 x 0.45 x 30 Hex SHCS -- 17NHX - 1	**Entities:** 2 edge(s) **Type:** Bolt(Head/Nut diameter)(Counterbore) **Connection Type:** Distributed **Head diameter:** 4.5 mm **Nut diameter:** 5 mm **Nominal shank diameter:** 2.5 mm **Material name:** Alloy Steel **Young's modulus:** 2.1e+11 N/m^2 **Poisson's ratio:** 0.28 **Tensile Stress Area:** 3.3908 mm^2 **Bolt Strength:** 6.20422e+08 N/m^2 **Safety Factor:** 2 **Preload (Axial):** 315.559 N **Friction Factor (K):** 0.2 **Tight Fit:** No	Bolt Check: OK Calculated FOS: 4.18089 Desired FOS: 2 

Connector Forces

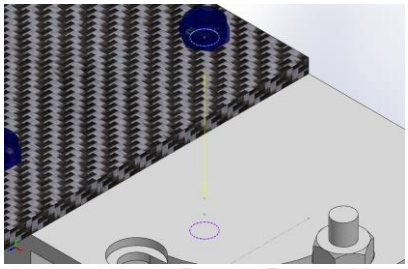
Type	X-Component	Y-Component	Z-Component	Resultant
Axial Force (N)	0	308.86	0	308.86
Shear Force (N)	6.3707	0	5.582	8.4702
Bending moment (N.m)	-0.046132	0	0.074824	0.087902

 B18.3.1M - 2.5 x 0.45 x 30 Hex SHCS -- 17NHX - 2	**Entities:** 2 edge(s) **Type:** Bolt(Head/Nut diameter)(Counterbore) **Connection Type:** Distributed **Head diameter:** 4.5 mm **Nut diameter:** 5 mm **Nominal shank diameter:** 2.5 mm **Material name:** Alloy Steel **Young's modulus:** 2.1e+11 N/m^2 **Poisson's ratio:** 0.28 **Tensile Stress Area:** 3.3908 mm^2 **Bolt Strength:** 6.20422e+08 N/m^2	Bolt Check: OK Calculated FOS: 4.16929 Desired FOS: 2 

	Safety Factor: 2 **Preload (Axial):** 315.559 N **Friction Factor (K):** 0.2 **Tight Fit:** No	

Connector Forces

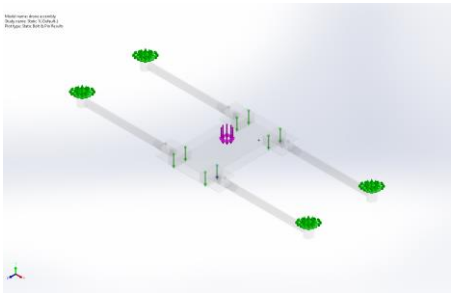
Type	X-Component	Y-Component	Z-Component	Resultant
Axial Force (N)	0	308.47	0	308.47
Shear Force (N)	-6.406	0	-5.5897	8.5018
Bending moment (N.m)	0.046414	0	-0.075602	0.088713



B18.3.1M - 2.5 x 0.45 x 30 Hex SHCS -- 17NHX - 3

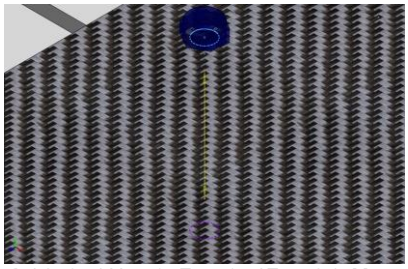
Entities: 2 edge(s)
Type: Bolt(Head/Nut diameter)(Counterbore)
Connection Type: Distributed
Head diameter: 4.5 mm
Nut diameter: 5 mm
Nominal shank diameter: 2.5 mm
Material name: Alloy Steel
Young's modulus: 2.1e+11 N/m^2
Poisson's ratio: 0.28
Tensile Stress Area: 3.3908 mm^2
Bolt Strength: 6.20422e+08 N/m^2
Safety Factor: 2
Preload (Axial): 315.559 N
Friction Factor (K): 0.2
Tight Fit: No

Bolt Check:	OK
Calculated FOS:	4.18081
Desired FOS:	2



Connector Forces

Type	X-Component	Y-Component	Z-Component	Resultant
Axial Force (N)	0	308.39	0	308.39
Shear Force (N)	6.3633	0	-5.5679	8.4553
Bending moment (N.m)	0.045891	0	0.07523	0.088123

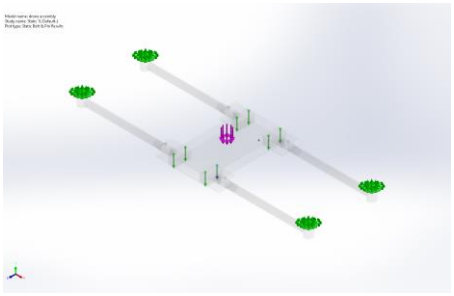


B18.3.1M - 2.5 x 0.45 x 30 Hex SHCS -- 17NHX - 4

Entities: 2 edge(s)
Type: Bolt(Head/Nut diameter)(Counterbore)
Connection Type: Distributed
Head diameter: 4.5 mm
Nut diameter: 5 mm
Nominal shank diameter: 2.5 mm
Material name: Alloy Steel
Young's modulus: 2.1e+11 N/m^2
Poisson's ratio: 0.28
Tensile Stress Area: 3.3908 mm^2

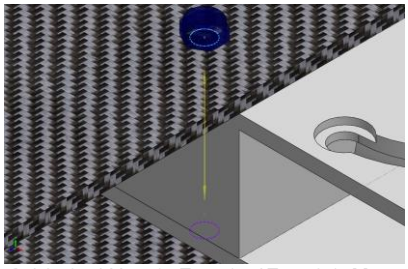
Bolt Check:	OK
Calculated FOS:	3.53816
Desired FOS:	2

Bolt Strength:	6.20422e+08 N/m^2
Safety Factor:	2
Preload (Axial):	315.559 N
Friction Factor (K):	0.2
Tight Fit:	No



Connector Forces

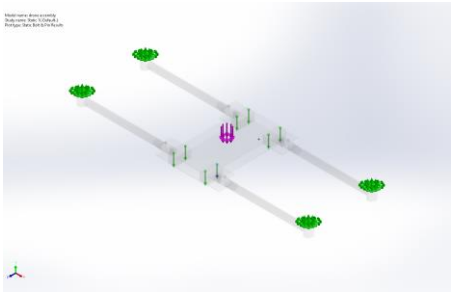
Type	X-Component	Y-Component	Z-Component	Resultant
Axial Force (N)	0	307.36	0	307.36
Shear Force (N)	-6.5167	0	-7.0952	9.6338
Bending moment (N.m)	0.10354	0	-0.078496	0.12993



B18.3.1M - 2.5 x 0.45 x 30 Hex SHCS -- 17NHX - 5

Entities:	2 edge(s)
Type:	Bolt(Head/Nut diameter)(Counterbore)
Connection Type:	Distributed
Head diameter:	4.5 mm
Nut diameter:	5 mm
Nominal shank diameter:	2.5 mm
Material name:	Alloy Steel
Young's modulus:	2.1e+11 N/m^2
Poisson's ratio:	0.28
Tensile Stress Area:	3.3908 mm^2
Bolt Strength:	6.20422e+08 N/m^2
Safety Factor:	2
Preload (Axial):	315.559 N
Friction Factor (K):	0.2
Tight Fit:	No

Bolt Check:	OK
Calculated FOS:	3.53744
Desired FOS:	2

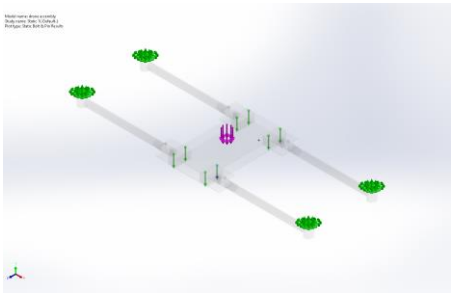


Connector Forces

Type	X-Component	Y-Component	Z-Component	Resultant
Axial Force (N)	0	307.78	0	307.78
Shear Force (N)	6.5573	0	-7.0895	9.657
Bending moment (N.m)	0.10337	0	0.0785	0.1298

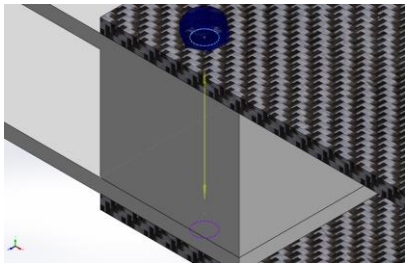
Entities:	2 edge(s)
Type:	Bolt(Head/Nut diameter)(Counterbore)
Connection Type:	Distributed
Head diameter:	4.5 mm
Nut diameter:	5 mm
Nominal shank	2.5 mm

Bolt Check:	OK
Calculated FOS:	3.54013
Desired FOS:	2

B18.3.1M - 2.5 x 0.45 x 30 Hex SHCS -- 17NHX - 6	**diameter:** **Material name:** **Young's modulus:** **Poisson's ratio:** **Tensile Stress Area:** **Bolt Strength:** **Safety Factor:** **Preload (Axial):** **Friction Factor (K):** **Tight Fit:**	 Alloy Steel 2.1e+11 N/m^2 0.28 3.3908 mm^2 6.20422e+08 N/m^2 2 315.559 N 0.2 No
		

Connector Forces

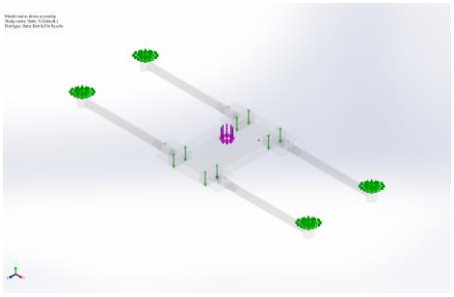
Type	X-Component	Y-Component	Z-Component	Resultant
Axial Force (N)	0	307.39	0	307.39
Shear Force (N)	-6.5364	0	7.101	9.6513
Bending moment (N.m)	-0.10334	0	-0.078501	0.12977



B18.3.1M - 2.5 x 0.45 x 30 Hex SHCS -- 17NHX - 7

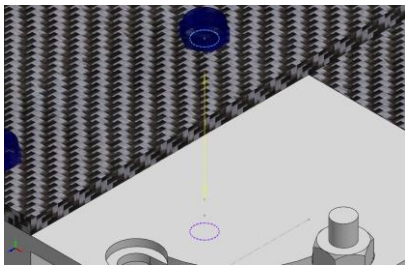
Entities:	2 edge(s)
Type:	Bolt(Head/Nut diameter)(Counterbore)
Connection Type:	Distributed
Head diameter:	4.5 mm
Nut diameter:	5 mm
Nominal shank diameter:	2.5 mm
Material name:	Alloy Steel
Young's modulus:	2.1e+11 N/m^2
Poisson's ratio:	0.28
Tensile Stress Area:	3.3908 mm^2
Bolt Strength:	6.20422e+08 N/m^2
Safety Factor:	2
Preload (Axial):	315.559 N
Friction Factor (K):	0.2
Tight Fit:	No

Bolt Check:	OK
Calculated FOS:	4.17841
Desired FOS:	2



Connector Forces

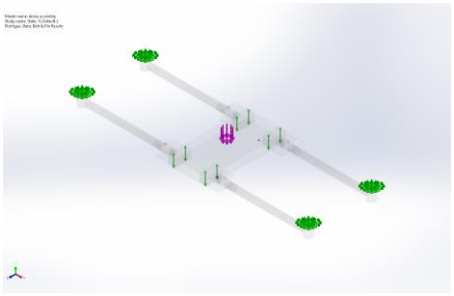
Type	X-Component	Y-Component	Z-Component	Resultant
Axial Force (N)	0	309.08	0	309.08
Shear Force (N)	-6.3724	0	5.5651	8.4604
Bending moment (N.m)	-0.04602	0	-0.074938	0.087941



B18.3.1M - 2.5 x 0.45 x 30 Hex SHCS -- 17NHX - 8

Entities:	2 edge(s)
Type:	Bolt(Head/Nut diameter)(Counterbore)
Connection Type:	Distributed
Head diameter:	4.5 mm
Nut diameter:	5 mm
Nominal shank diameter:	2.5 mm
Material name:	Alloy Steel
Young's modulus:	2.1e+11 N/m^2
Poisson's ratio:	0.28
Tensile Stress Area:	3.3908 mm^2
Bolt Strength:	6.20422e+08 N/m^2
Safety Factor:	2
Preload (Axial):	315.559 N
Friction Factor (K):	0.2
Tight Fit:	No

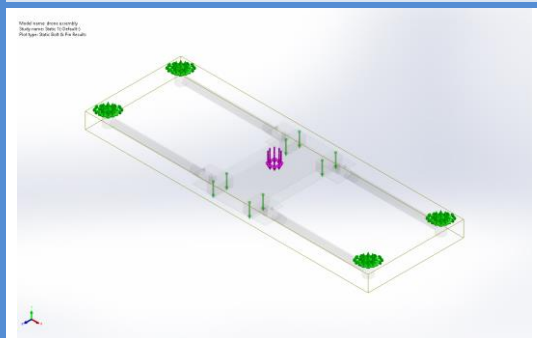
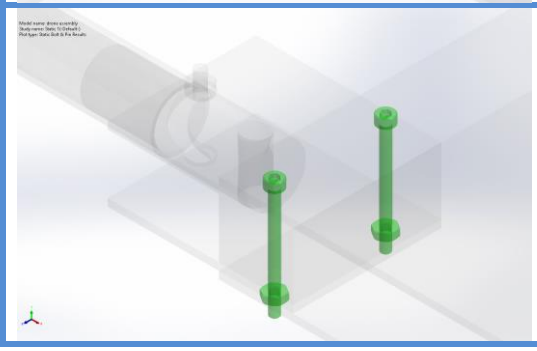
Bolt Check:	OK
Calculated FOS:	3.53963
Desired FOS:	2

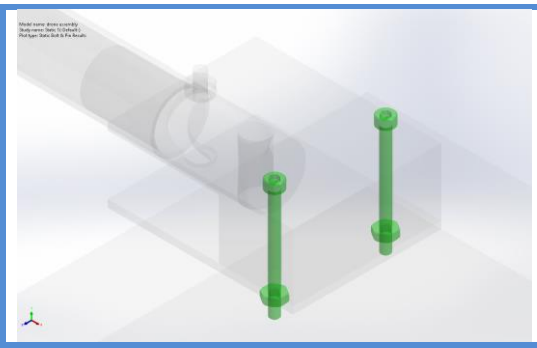
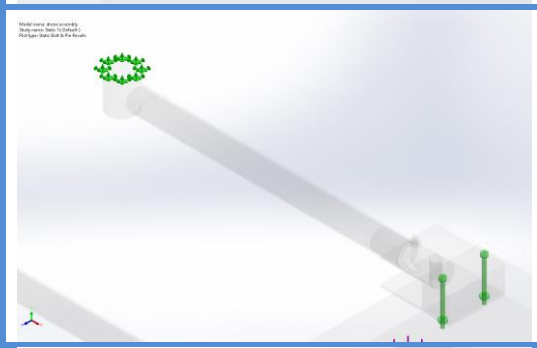
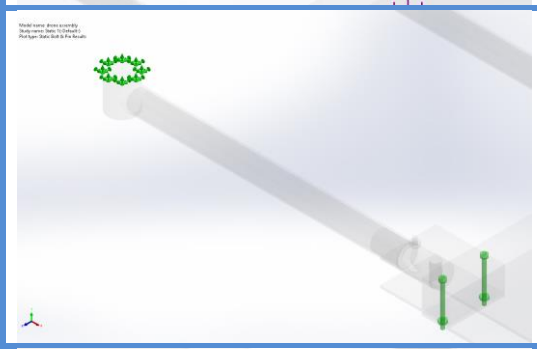
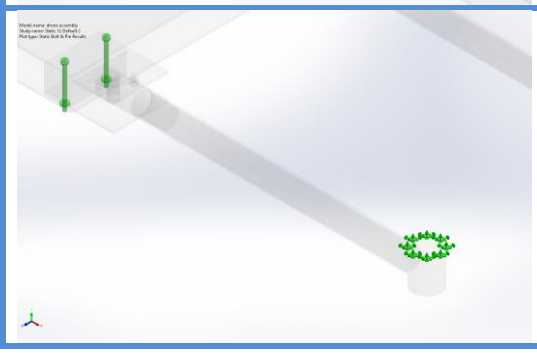


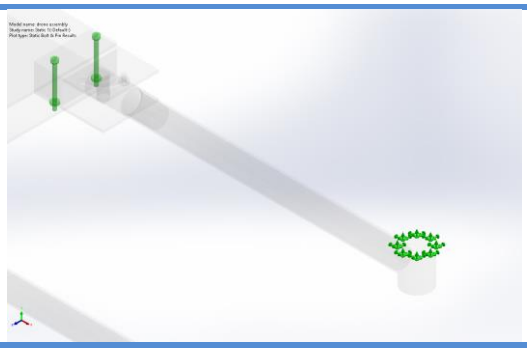
Connector Forces

Type	X-Component	Y-Component	Z-Component	Resultant
Axial Force (N)	0	307.45	0	307.45
Shear Force (N)	6.5402	0	7.0943	9.649
Bending moment (N.m)	-0.10324	0	0.078639	0.12978

Contact Information

Contact	Contact Image	Contact Properties
Global Contact		**Type:** No penetration (Surface to surface) **Components:** 1 component(s)
Component Contact-1		**Type:** Bonded **Components:** 2 Solid Body (s) **Options:** Incompatible mesh
Component Contact-2		**Type:** Bonded **Components:** 2 Solid Body (s) **Options:** Incompatible mesh
Component Contact-3		**Type:** Bonded **Components:** 2 Solid Body (s) **Options:** Incompatible mesh

Component Contact-4		**Type:** Bonded **Components:** 2 Solid Body (s) **Options:** Incompatible mesh
Component Contact-5		**Type:** Bonded **Components:** 2 Solid Body (s) **Options:** Incompatible mesh
Component Contact-6		**Type:** Bonded **Components:** 2 Solid Body (s) **Options:** Incompatible mesh
Component Contact-7		**Type:** Bonded **Components:** 2 Solid Body (s) **Options:** Incompatible mesh

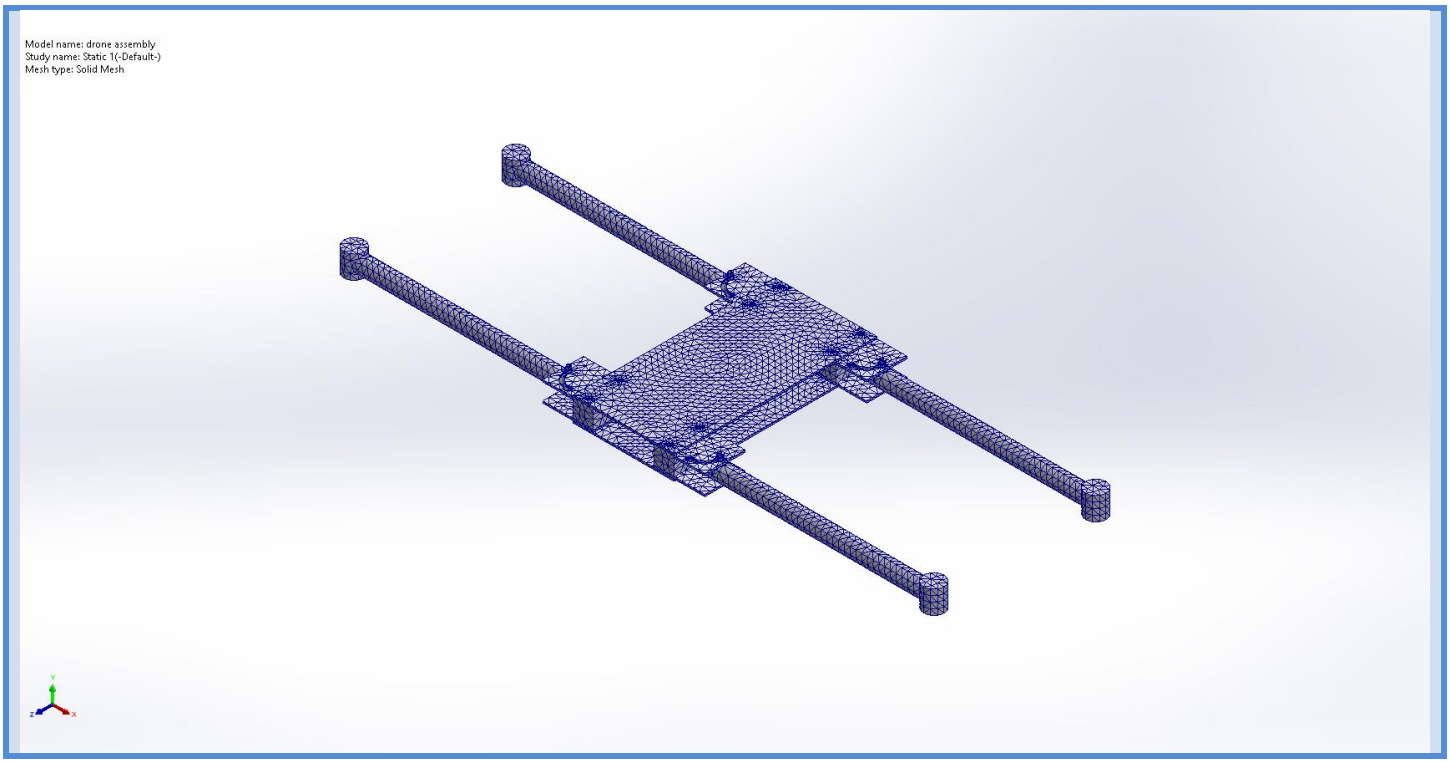
Component Contact-8		**Type:** Bonded **Components:** 2 Solid Body (s) **Options:** Incompatible mesh

Mesh information

Mesh type	Solid Mesh
Mesher Used:	Standard mesh
Automatic Transition:	Off
Include Mesh Auto Loops:	Off
Jacobian points for High quality mesh	16 Points
Element Size	5.76993 mm
Tolerance	0.288496 mm
Mesh Quality	High
Remesh failed parts with incompatible mesh	Off

Mesh information - Details

Total Nodes	63427
Total Elements	32029
Maximum Aspect Ratio	17.838
% of elements with Aspect Ratio < 3	55.3
Percentage of elements with Aspect Ratio > 10	0.428
Percentage of distorted elements	0
Time to complete mesh(hh;mm;ss):	00:00:07
Computer name:	



Sensor Details

No Data

Resultant Forces

Reaction forces

Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N	-7.86781e-06	40	2.98023e-07	40

Reaction Moments

Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N.m	0	0	0	0

Free body forces

Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N	-1.56227e-05	-0.00518942	1.4836e-06	0.00518944

Free body moments

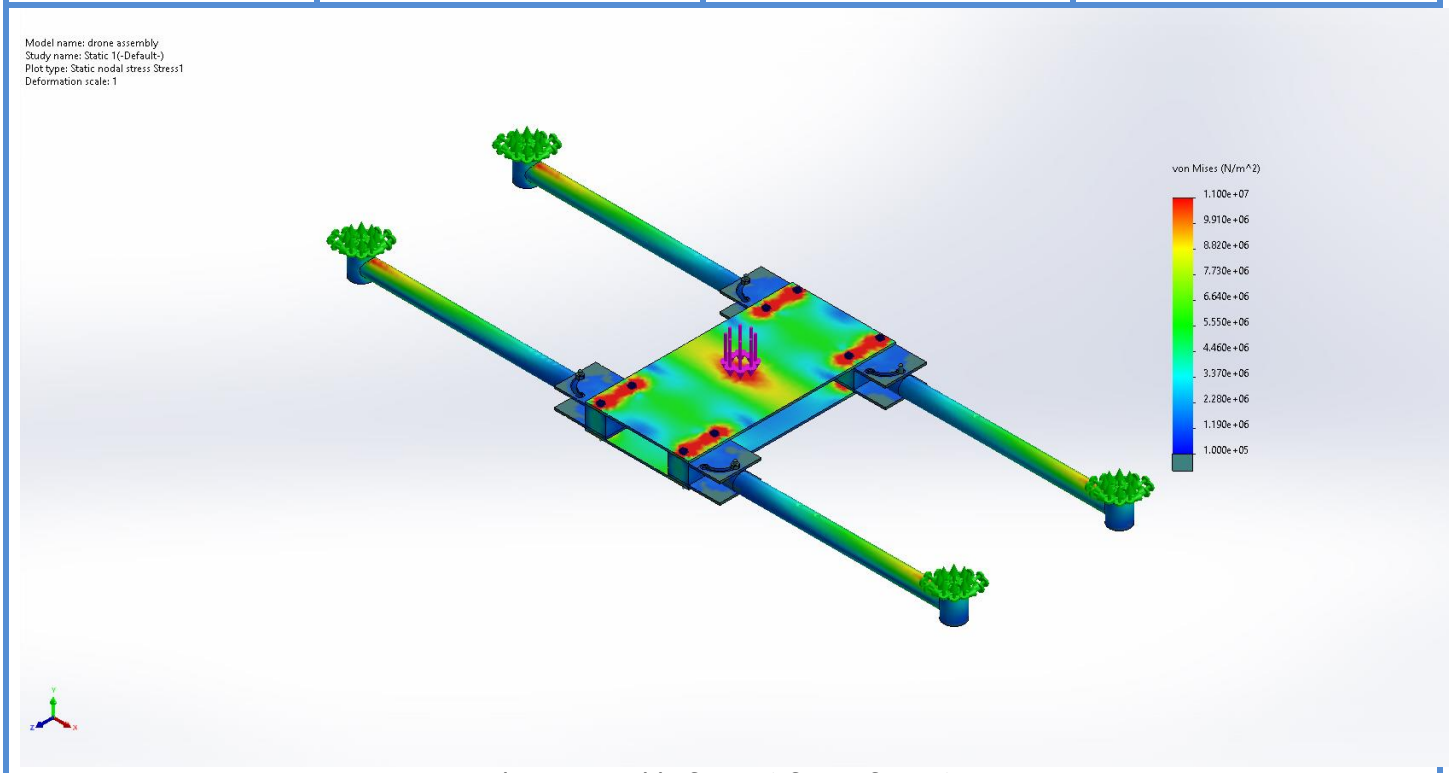
Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N.m	0	0	0	1e-33

Beams

No Data

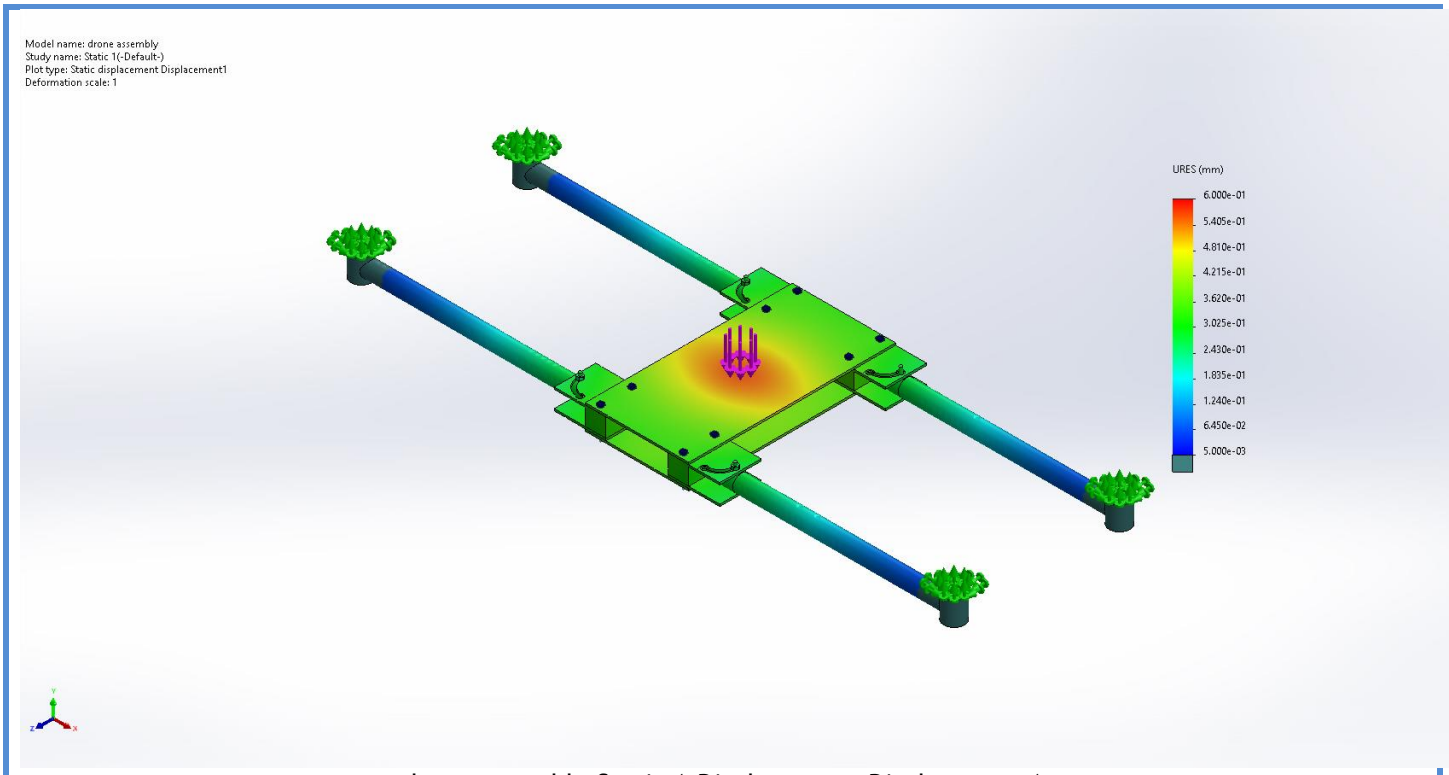
Study Results

Name	Type	Min	Max
Stress1	VON: von Mises Stress	2.139e+02N/m^2 Node: 47456	7.843e+07N/m^2 Node: 18588



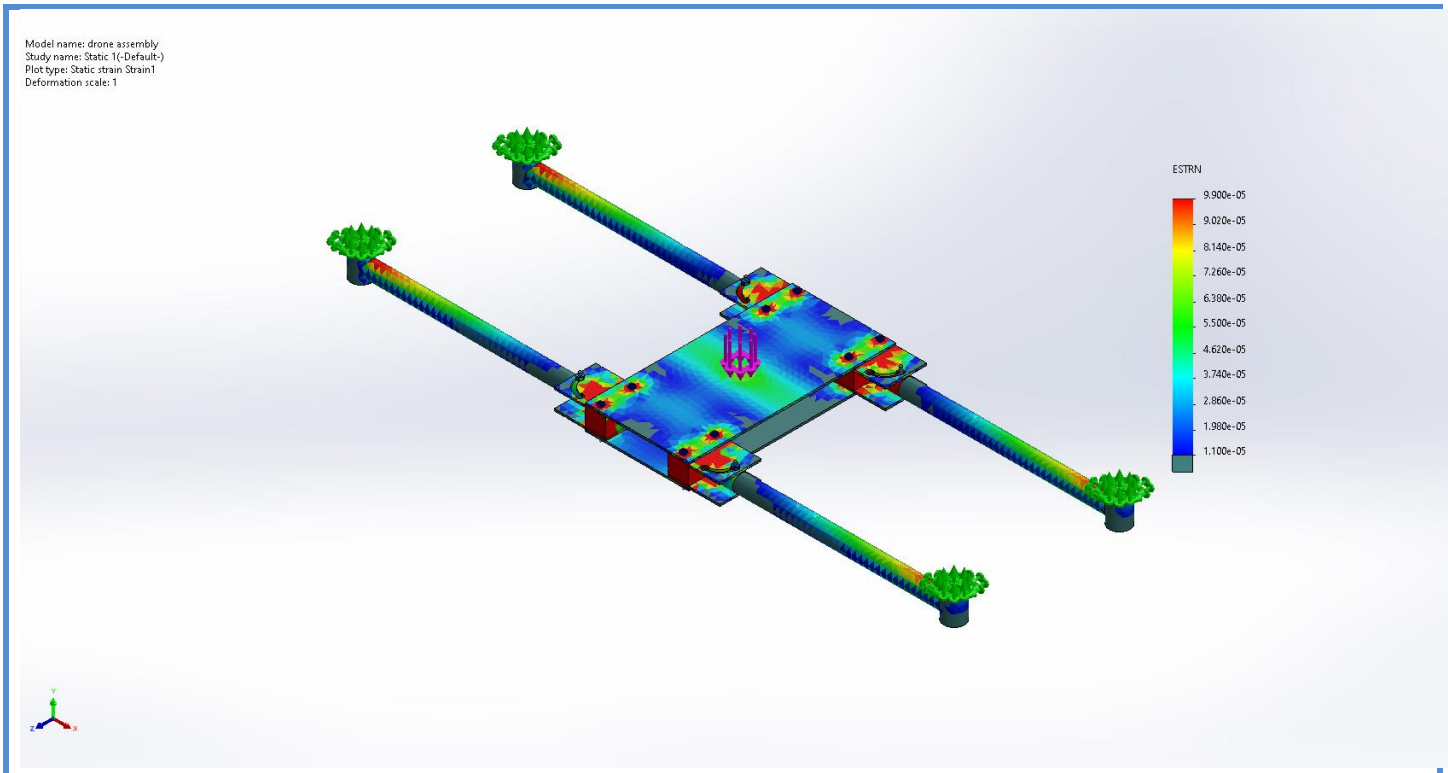
drone assembly-Static 1-Stress-Stress1

Name	Type	Min	Max
Displacement1	URES: Resultant Displacement	0.000e+00mm Node: 25856	5.451e+02mm Node: 52137



drone assembly-Static 1-Displacement-Displacement1

Name	Type	Min	Max
Strain1	ESTRN: Equivalent Strain	6.720e-08 Element: 23511	1.787e-03 Element: 11081



drone assembly-Static 1-Strain-Strain1

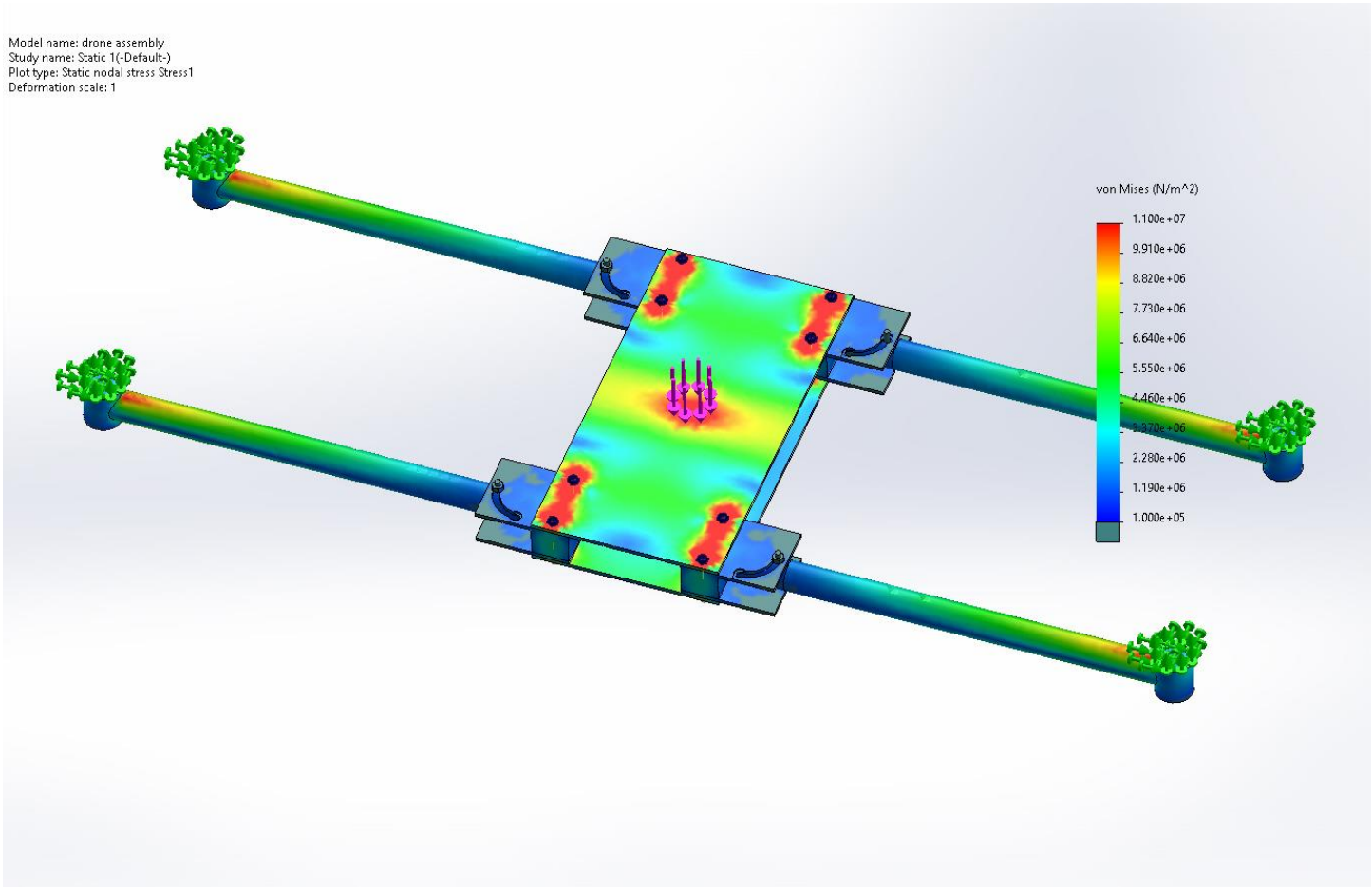

Model name: drone assembly
Study name: Static 1(-Default-)
Plot type: Static nodal stress Stress1
Deformation scale: 1
von Mises (N/m^2)
1.100e+07
9.910e+06
8.820e+06
7.730e+06
6.640e+06
5.550e+06
4.460e+06
3.370e+06
2.280e+06
1.190e+06
1.000e+05

Image-1

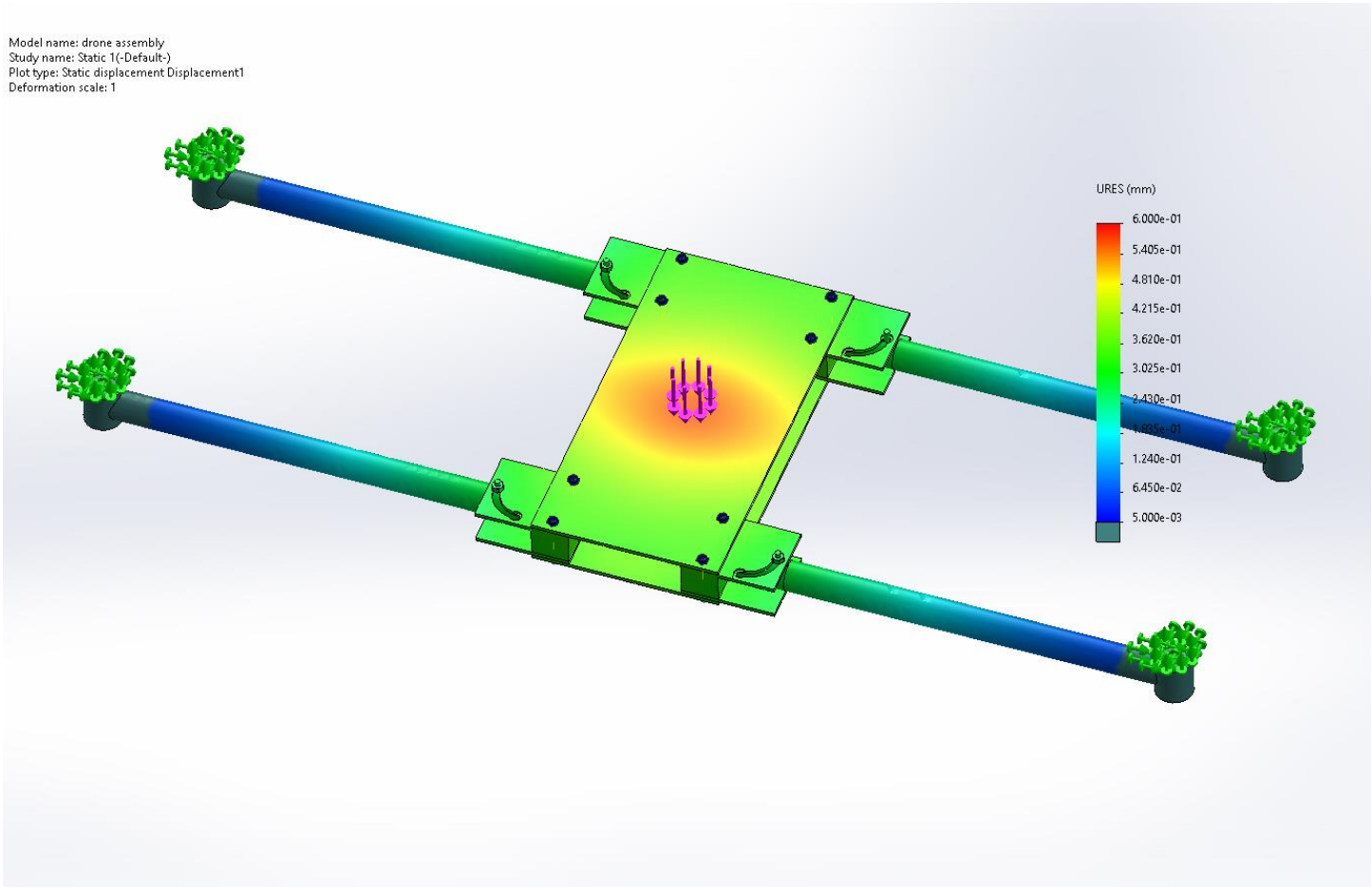

Model name: drone assembly
Study name: Static 1(-Default-)
Plot type: Static displacement Displacement1
Deformation scale: 1
URES (mm)
6.000e-01
5.405e-01
4.810e-01
4.215e-01
3.620e-01
3.025e-01
2.430e-01
1.835e-01
1.240e-01
6.450e-02
5.000e-03

Image-2

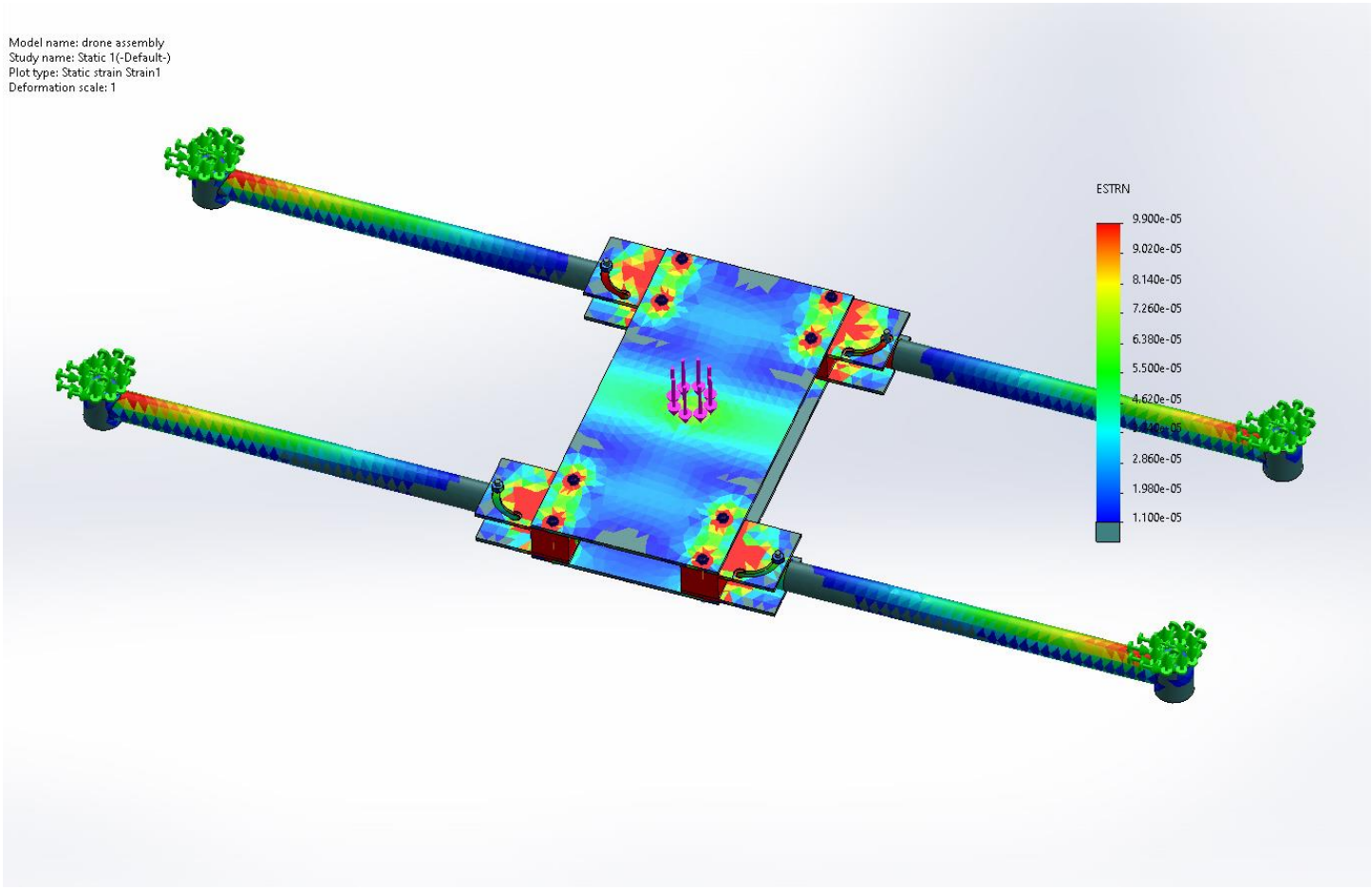

Model name: drone assembly
Study name: Static 1(-Default-)
Plot type: Static strain Strain1
Deformation scale: 1
ESTRN
9.900e-05
9.020e-05
8.140e-05
7.260e-05
6.380e-05
5.500e-05
4.620e-05
2.860e-05
1.980e-05
1.100e-05

Image-3

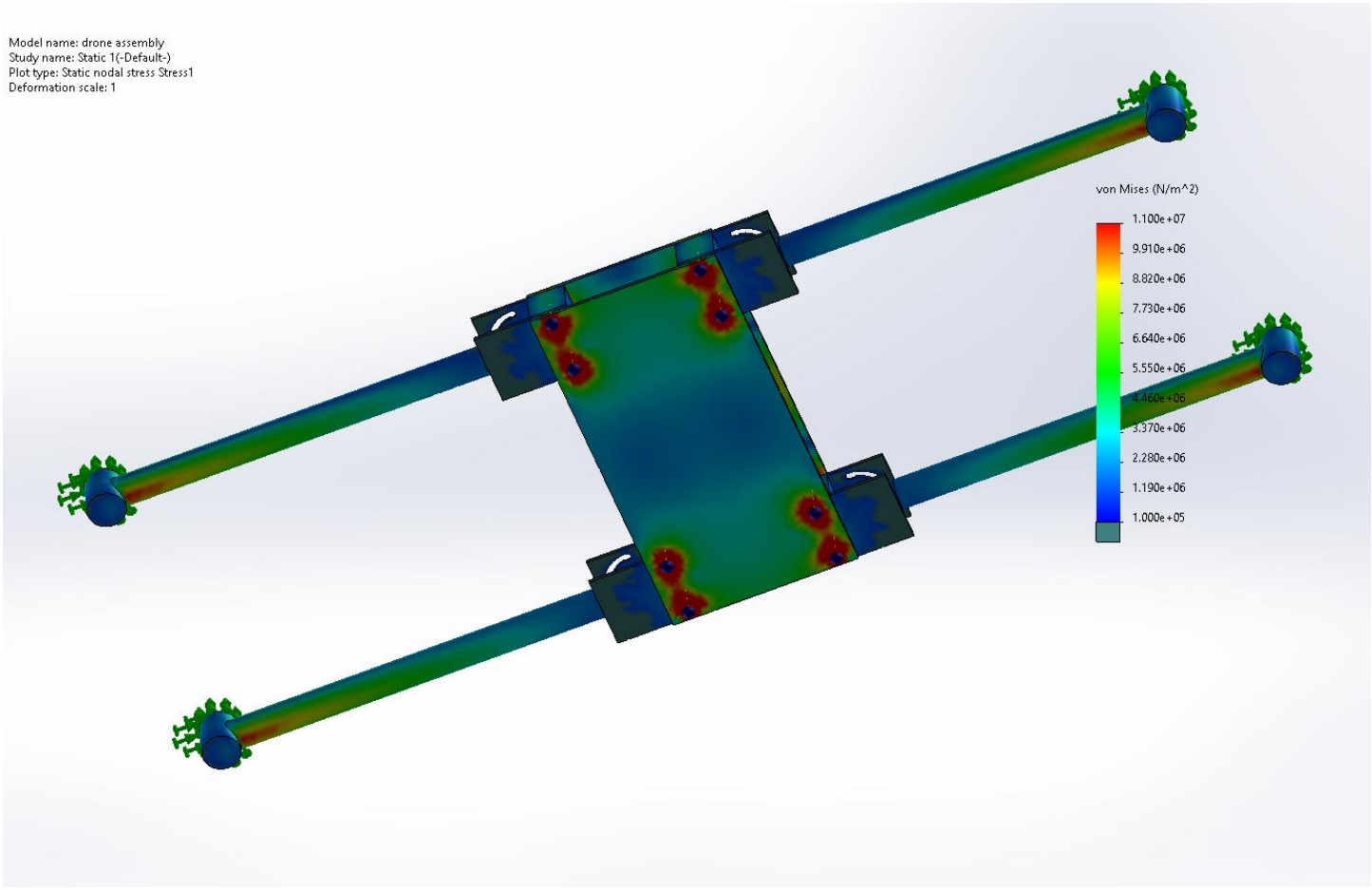

Model name: drone assembly
Study name: Static 1(-Default-)
Plot type: Static nodal stress Stress1
Deformation scale: 1
von Mises (N/m^2)
1.100e+07
9.910e+06
8.820e+06
7.730e+06
6.640e+06
5.550e+06
4.460e+06
3.370e+06
2.280e+06
1.190e+06
1.000e+05

Image-4

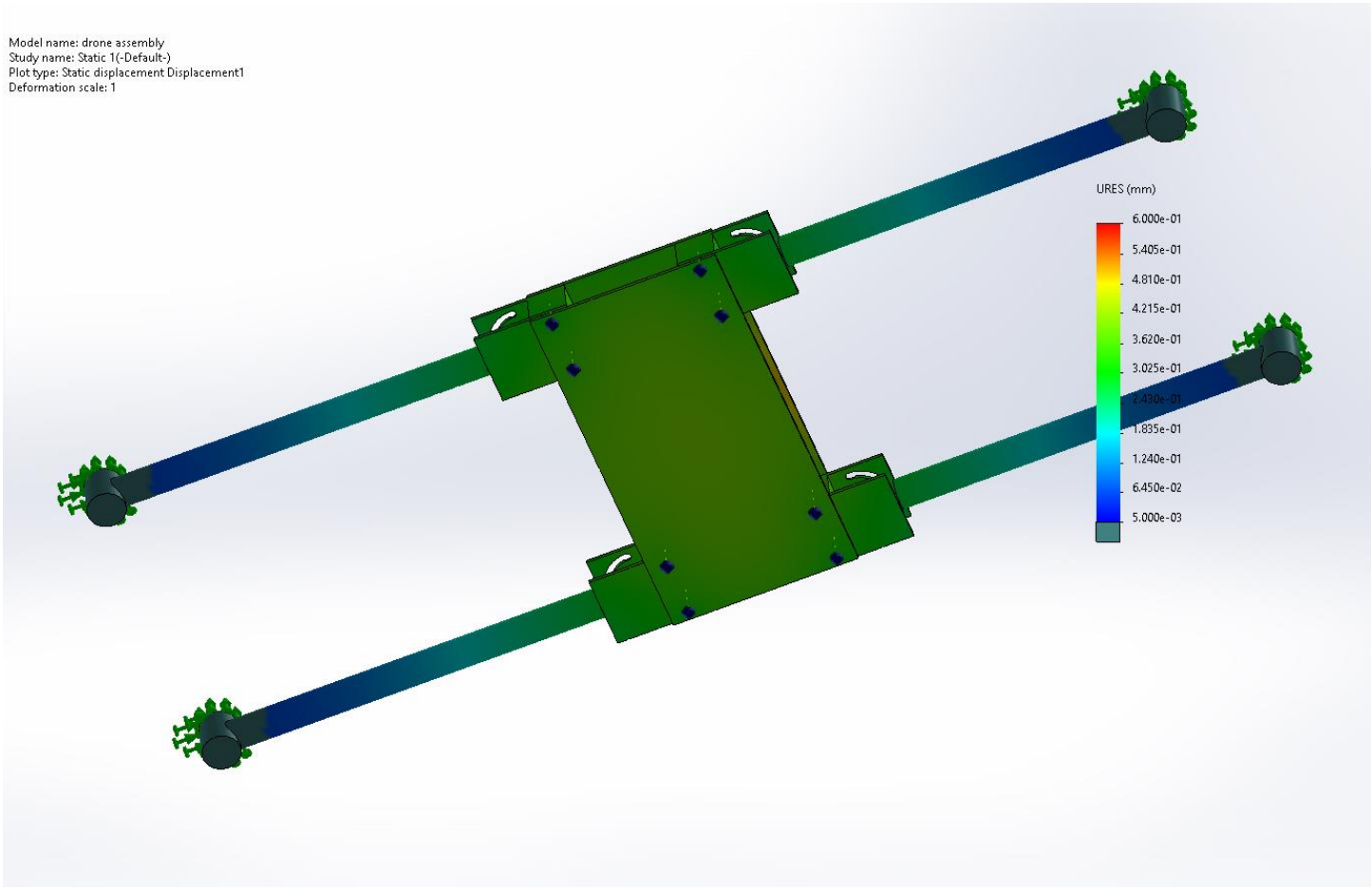

Model name: drone assembly
Study name: Static 1(-Default-)
Plot type: Static displacement Displacement1
Deformation scale: 1
URES (mm)
6.000e-01
5.405e-01
4.810e-01
4.215e-01
3.620e-01
3.025e-01
2.430e-01
1.835e-01
1.240e-01
6.450e-02
5.000e-03

Image-5

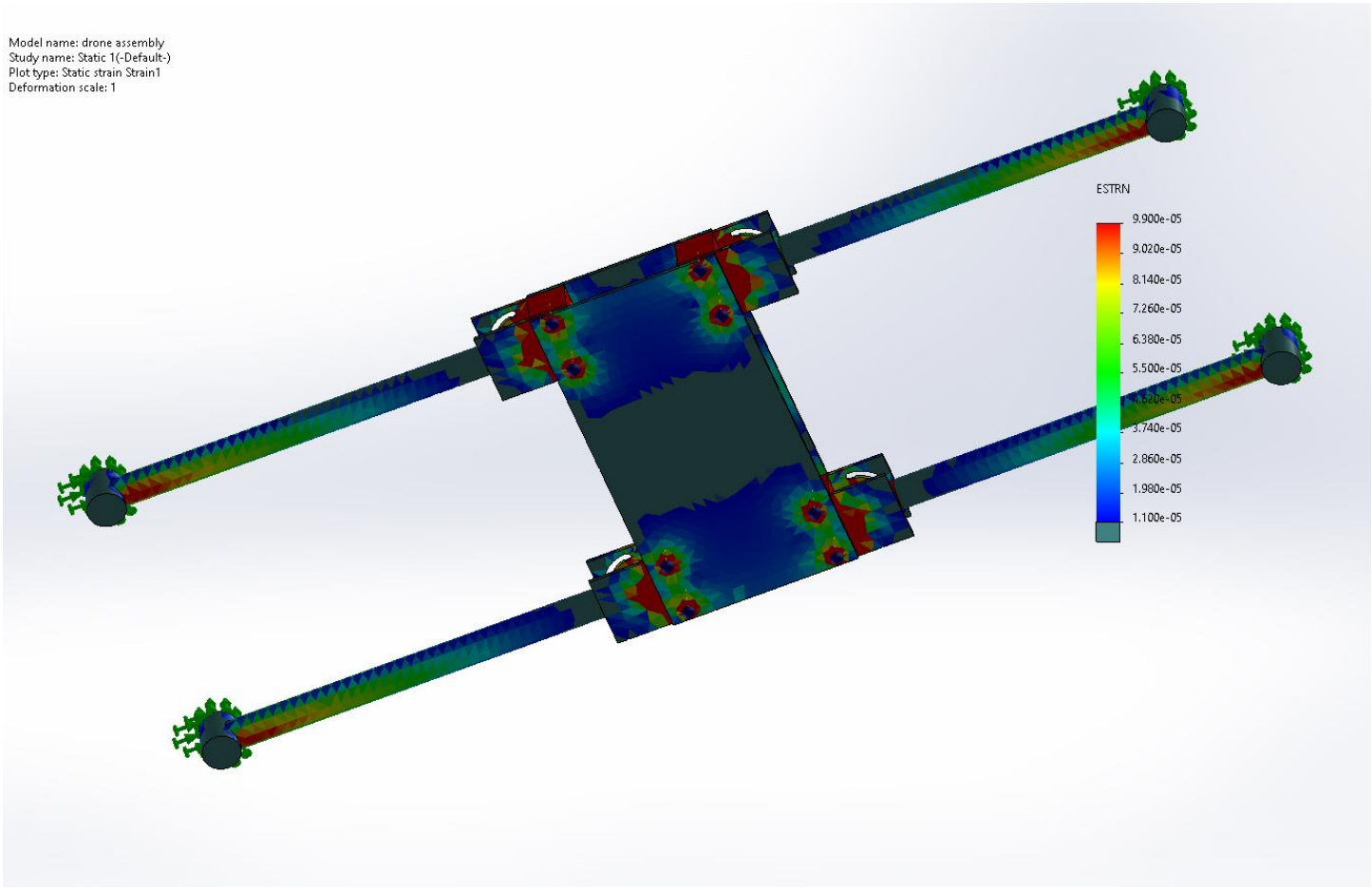


Image-6

Conclusion