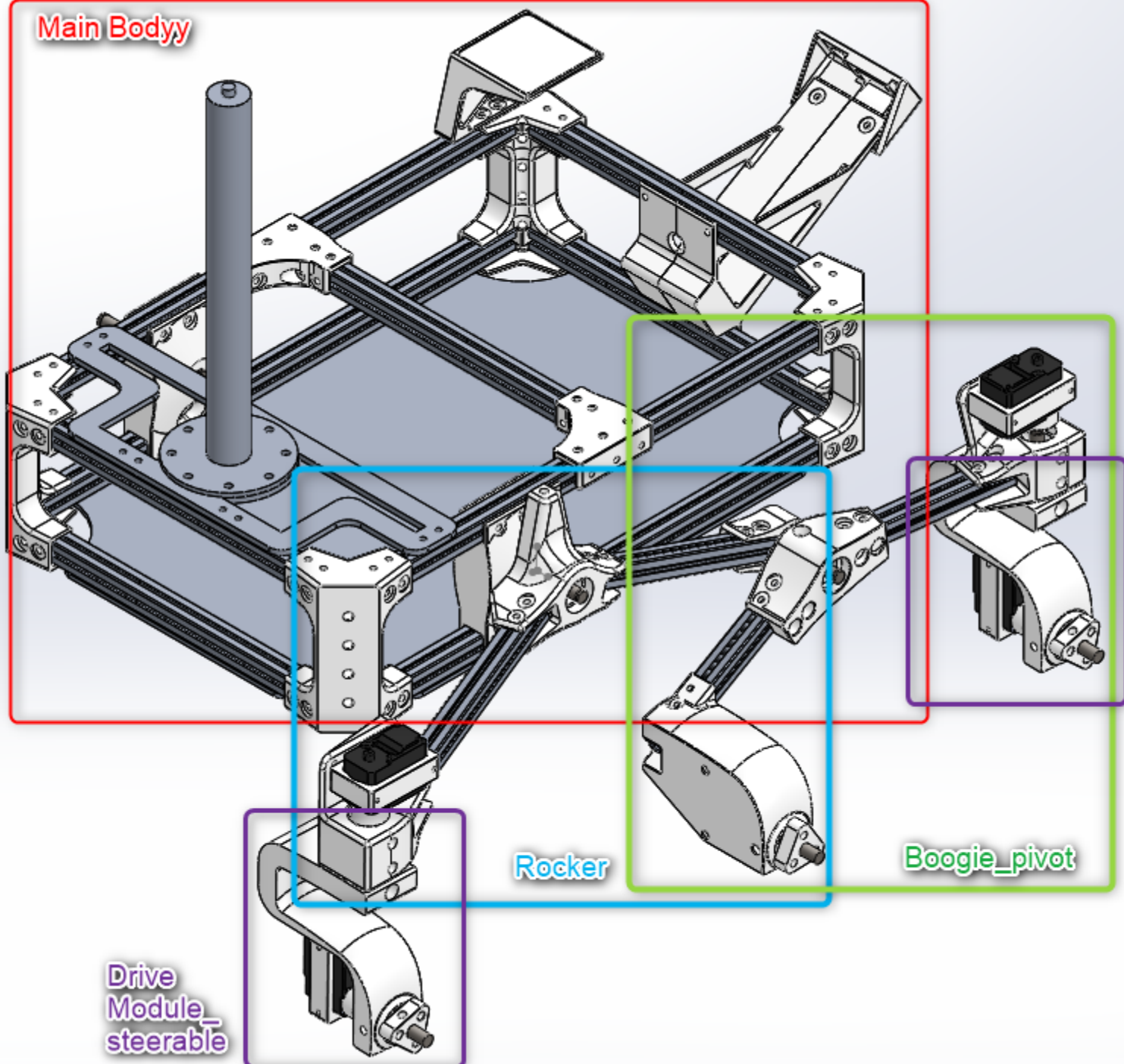
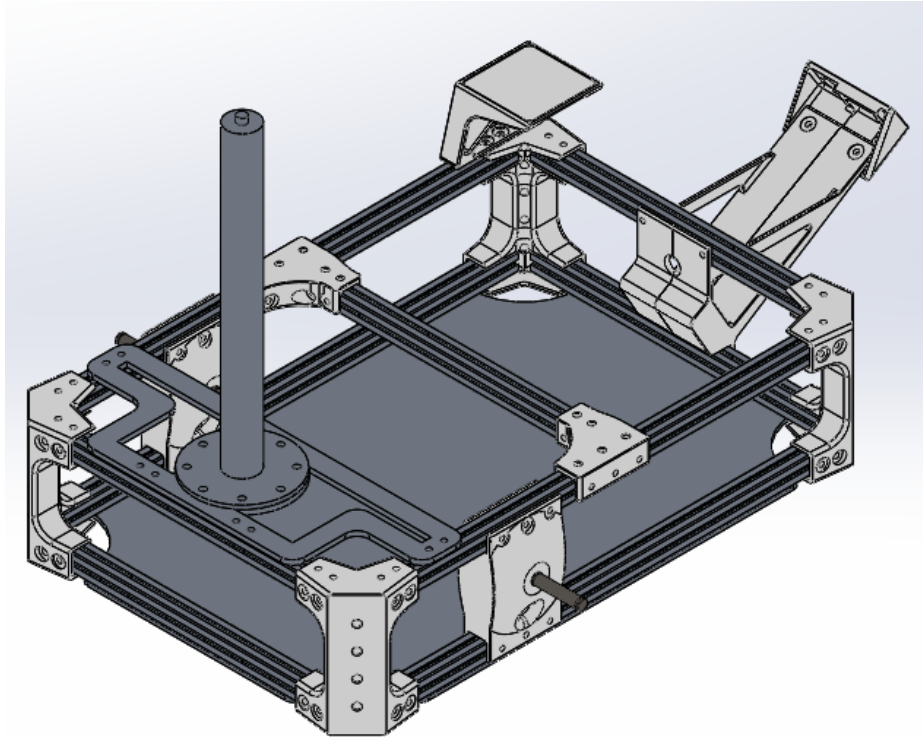


Main Bodyy



ROVER

Archivo: Main Bodyy



Mass properties of Main Bodyy

Configuration: Standard

Coordinate system: Coordinate System1

Mass = 3.2015 kilograms

Volume = 0.0016 cubic meters

Surface area = 0.8676 square meters

Center of mass: (meters)

X = -0.0012

Y = -0.0226

Z = 0.0618

Principal axes of inertia and principal moments of inertia: (kilograms * square meters)

Taken at the center of mass.

Ix = (0.0177, -0.9828, 0.1838)

Px = 0.0465

Iy = (0.9995, 0.0125, -0.0293)

Py = 0.0860

Iz = (0.0265, 0.1843, 0.9825)

Pz = 0.1013

Moments of inertia: (kilograms * square meters)

Taken at the center of mass and aligned with the output coordinate system.

Lxx = 0.0860

Lxy = -0.0008

Lxz = -0.0003

Lyx = -0.0008

Lyx = 0.0483

Lyz = -0.0099

Lzx = -0.0003

Lzy = -0.0099

Lzz = 0.0994

Moments of inertia: (kilograms * square meters)

Taken at the output coordinate system.

Ixx = 0.0999

Ixy = -0.0007

Ixz = -0.0005

Iyx = -0.0007

Iyy = 0.0606

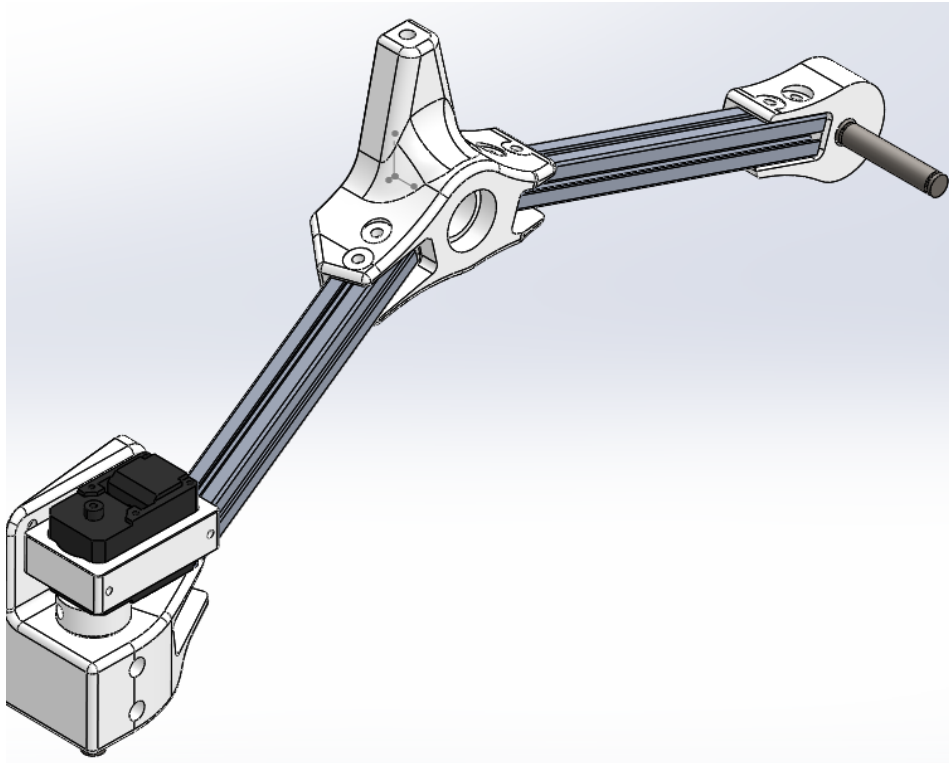
Iyz = -0.0144

Izx = -0.0005

Izy = -0.0144

Izz = 0.1011

Archivo: Rocker



Mass properties of Rocker
Configuration: Standard
Coordinate system: Coordinate System1

Mass = 0.377 kilograms

Volume = 0.0003 cubic meters

Surface area = 0.1121 square meters

Center of mass: (meters)

X = 0.0426

Y = -0.0588

Z = -0.026

Principal axes of inertia and principal moments of inertia: (kilograms * square meters)

Taken at the center of mass.

$I_x = (0.1634, -0.9861, 0.0311)$

$P_x = 0.0003$

$I_y = (0.414, 0.0399, -0.9094)$

$P_y = 0.0078$

$I_z = (0.8955, 0.1615, 0.4147)$

$P_z = 0.008$

Moments of inertia: (kilograms * square meters)

Taken at the center of mass and aligned with the output coordinate system.

$L_{xx} = 0.0077$

$L_{xy} = -0.0012$

$L_{xz} = 0$

$L_{yx} = -0.0012$

$L_{yy} = 0.0006$

$L_{yz} = -0.0002$

$L_{zx} = 0$

$L_{zy} = -0.0002$

$L_{zz} = 0.0078$

Moments of inertia: (kilograms * square meters)

Taken at the output coordinate system.

$I_{xx} = 0.0093$

$I_{xy} = -0.0022$

$I_{xz} = -0.0005$

$I_{yx} = -0.0022$

$I_{yy} = 0.0015$

$I_{yz} = 0.0003$

$I_{zx} = -0.0005$

$I_{zy} = 0.0003$

$I_{zz} = 0.0098$

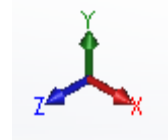
Distancias al origen del main body

Distance: 181.96mm

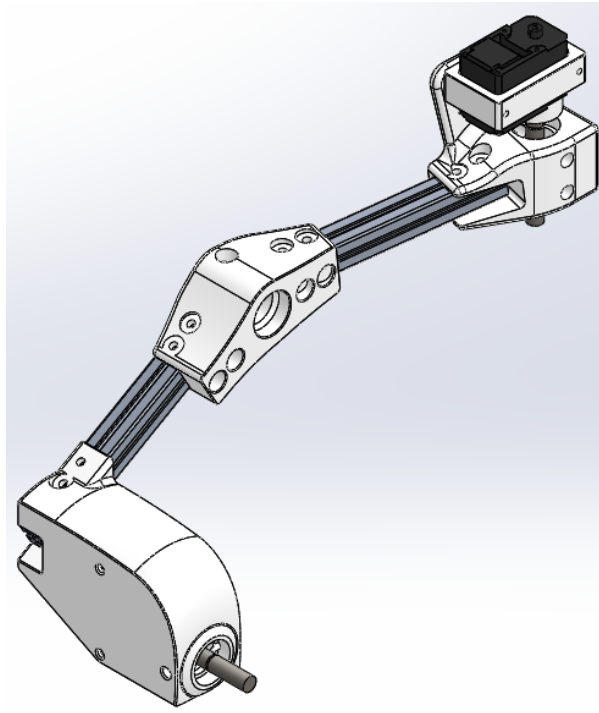
Delta X: 156.20mm

Delta Y: 55.70mm

Delta Z: 74.90mm



Archivo: Boogie_pivot



Distance: 209.33mm
Delta X: 180.90mm
Delta Y: 5.93mm
Delta Z: 105.17mm

Mass properties of Bogie_pivot
Configuration: Standard
Coordinate system: Coordinate System1

Mass = 0.4016 kilograms

Volume = 0.0003 cubic meters

Surface area = 0.13 square meters

Center of mass: (meters)

X = 0.0467
Y = 0.0106
Z = -0.0186

Principal axes of inertia and principal moments of inertia: (kilograms * square meters)
Taken at the center of mass.

Ix = (0.0553, -0.9114, -0.4077)	Px = 0.0004
Iy = (0.8293, 0.2693, -0.4896)	Py = 0.0058
Iz = (0.5561, -0.311, 0.7708)	Pz = 0.006

Moments of inertia: (kilograms * square meters)

Taken at the center of mass and aligned with the output coordinate system.

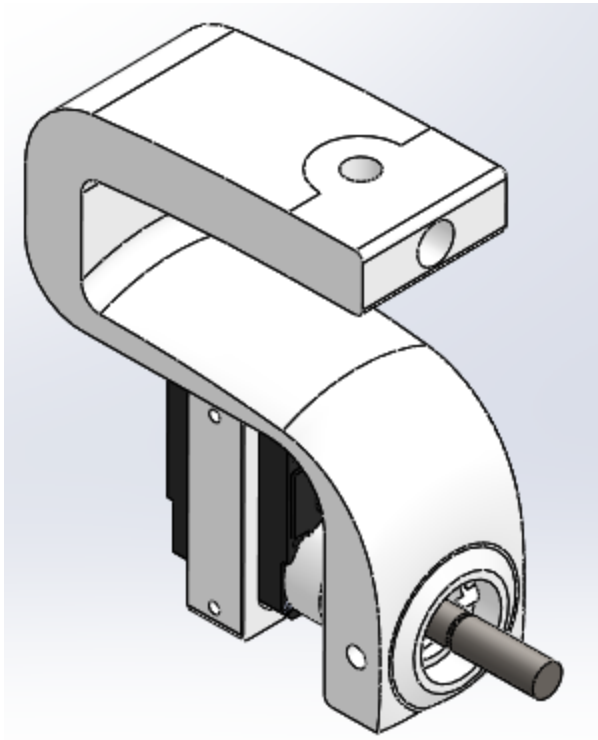
Lxx = 0.0059	Lxy = -0.0002	Lxz = -0.0002
Lyx = -0.0002	Lyy = 0.0014	Lyx = 0.002
Lzx = -0.0002	Lzy = 0.002	Lzz = 0.0051

Moments of inertia: (kilograms * square meters)

Taken at the output coordinate system.

Ixx = 0.0061	Ixy = 0	Ixz = -0.0006
Iyx = 0	Iyy = 0.0024	Iyz = 0.002
Izx = -0.0006	Izy = 0.002	Izz = 0.006

Archivo: Drive Module_steerable



Distance: 399.33mm
Delta X: 258.58mm
Delta Y: 104.15mm
Delta Z: 285.92mm

1

Distance: 376.58mm
Delta X: 258.09mm
Delta Y: 104.12mm
Delta Z: 253.71mm

2

Mass properties of MirrorDrive Module_steerable
Configuration: Standard
Coordinate system: Coordinate System1

Mass = 0.1932 kilograms

Volume = 0.0002 cubic meters

Surface area = 0.0525 square meters

Center of mass: (meters)

X = -0.0392

Y = -0.0273

Z = 0.0416

Principal axes of inertia and principal moments of inertia: (kilograms * square meters)

Taken at the center of mass.

Ix = (-0.0078, -0.5596, 0.8287)

Px = 0.0037

Iy = (0.0209, 0.8285, 0.5596)

Py = 0.0075

Iz = (-0.9998, 0.0217, 0.0052)

Pz = 0.0102

Moments of inertia: (kilograms * square meters)

Taken at the center of mass and aligned with the output coordinate system.

Lxx = 0.0102

Lxy = 0.0001

Lxz = 0.0000

Lyx = 0.0001

Lyx = 0.0063

Lyz = -0.0018

Lzx = 0.0000

Lzy = -0.0018

Lzz = 0.0049

Moments of inertia: (kilograms * square meters)

Taken at the output coordinate system.

Ixx = 0.0107

Ixy = 0.0003

Ixz = -0.0003

Iyx = 0.0003

Iyy = 0.0070

Iyz = -0.0020

Izx = -0.0003

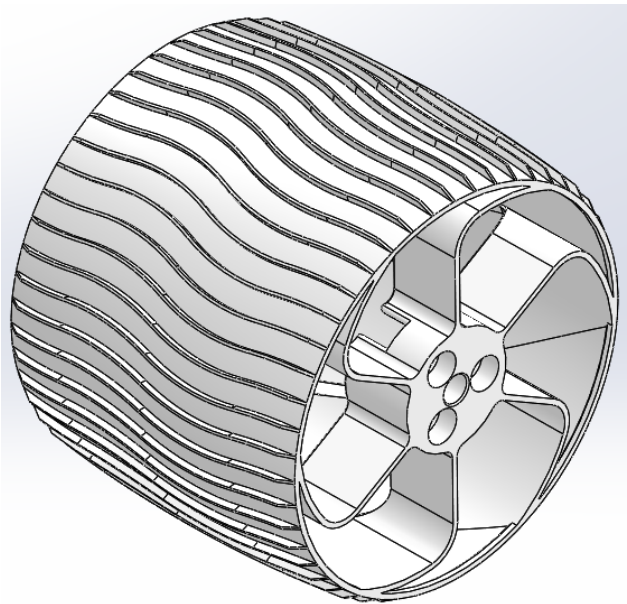
Izy = -0.0020

Izz = 0.0054

Distance: 406.64mm
Delta X: 269.58mm
Delta Y: 104.18mm
Delta Z: 286.06mm

1

Archivo: Wheel



Distance: 316.44mm
Delta X: 299.40mm
Delta Y: 102.42mm
Delta Z: 1.79mm

2

Distance: 384.21mm
Delta X: 269.09mm
Delta Y: 104.12mm
Delta Z: 253.71mm

3

Distance: 384.21mm
Delta X: 269.09mm
Delta Y: 104.12mm
Delta Z: 253.71mm

4

Distance: 316.44mm
Delta X: 299.40mm
Delta Y: 102.42mm
Delta Z: 1.79mm

5

Mass properties of Wheel
Configuration: Standard
Coordinate system: Coordinate System1

Distance: 406.64mm
Delta X: 269.58mm
Delta Y: 104.18mm
Delta Z: 286.06mm

6

Density = 1020 kilograms per cubic meter

Mass = 0.11466772 kilograms

Volume = 0.00011242 cubic meters

Surface area = 0.12789658 square meters

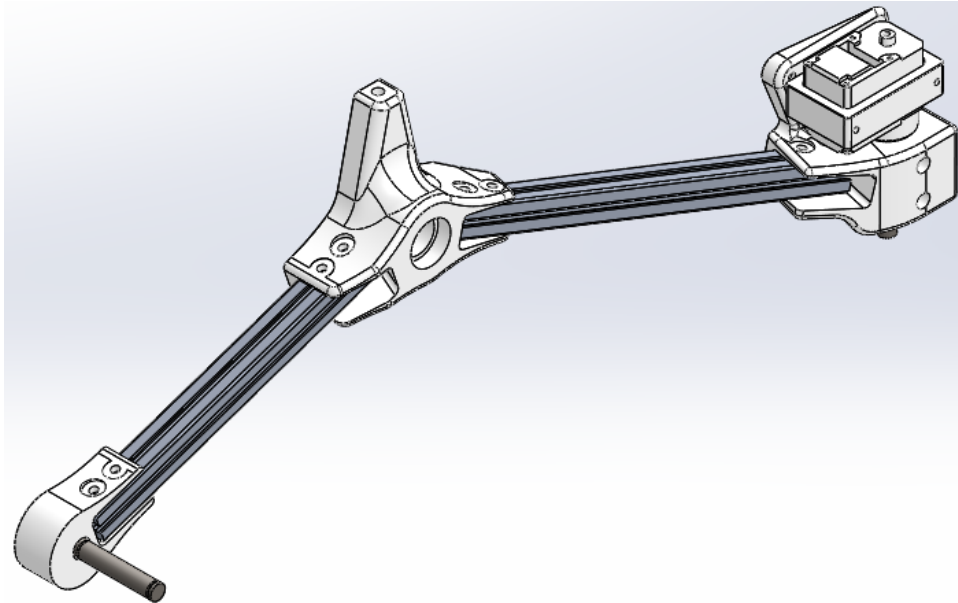
Center of mass: (meters)
X = -0.0283157
Y = 0
Z = -0.00034779

Principal axes of inertia and principal moments of inertia: (kilograms * square meters)
Taken at the center of mass.
Ix = (-0.01104094, -0.4440118, 0.89595291) Px = 0.0002563
Iy = (0.00542147, -0.89602094, -0.4439787) Py = 0.00025631
Iz = (0.99992435, -4.456e-05, 0.01230011) Pz = 0.00032224

Moments of inertia: (kilograms * square meters)
Taken at the center of mass and aligned with the output coordinate system.
Lxx = 0.00032223 Lxy = 0 Lxz = -8.1e-07
Lyx = 0 Lyy = 0.00025631 Lyz = 0
Lzx = -8.1e-07 Lzy = 0 Lzz = 0.00025631

Moments of inertia: (kilograms * square meters)
Taken at the output coordinate system.
Ixx = 0.00032225 Ixy = 0 Ixz = 3.2e-07
Iyx = 0 Iyy = 0.00034826 Iyz = 0
Izx = 3.2e-07 Izy = 0 Izz = 0.00034825

Archivo: MirrorRocker



Mass properties of MirrorRocker
Configuration: Standard
Coordinate system: Coordinate System1

Mass = 0.3770 kilograms

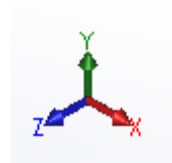
Volume = 0.0003 cubic meters

Surface area = 0.1121 square meters

Center of mass: (meters)

X = 0.0646
Y = 0.0913
Z = -0.0405

Distance: 181.96mm
Delta X: 156.20mm
Delta Y: 55.70mm
Delta Z: 74.90mm



Principal axes of inertia and principal moments of inertia: (kilograms * square meters)

Taken at the center of mass.

$I_x = (-0.9743, -0.1228, 0.1887)$	$P_x = 0.0161$
$I_y = (-0.1565, -0.2328, -0.9599)$	$P_y = 0.0258$
$I_z = (0.1617, -0.9648, 0.2076)$	$P_z = 0.0342$

Moments of inertia: (kilograms * square meters)

Taken at the center of mass and aligned with the output coordinate system.

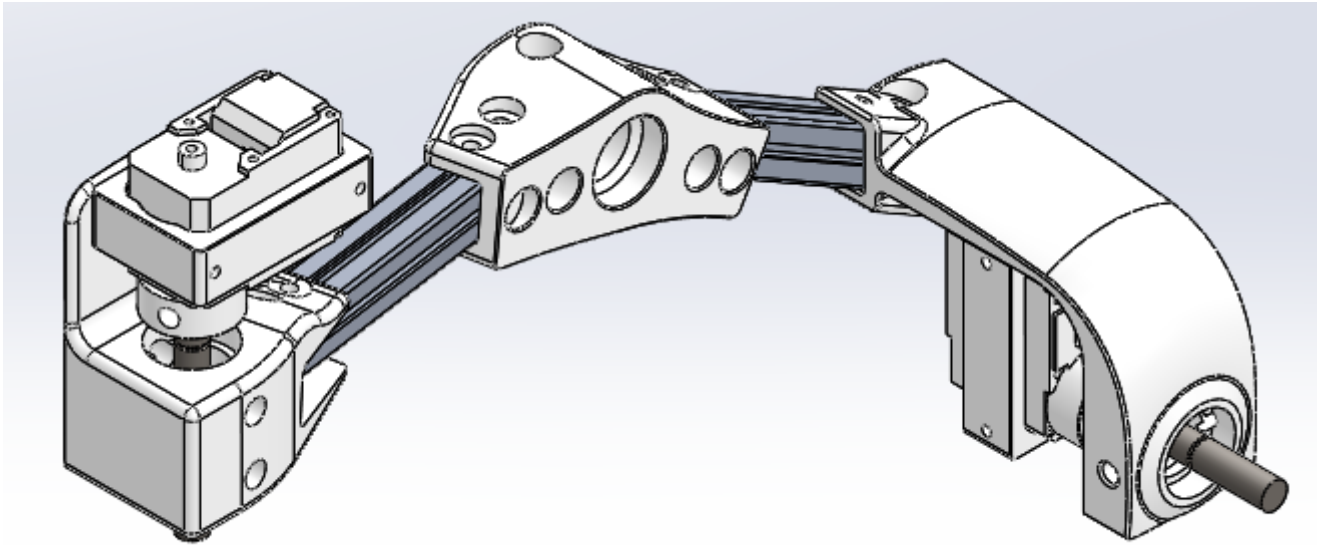
$L_{xx} = 0.0168$	$L_{xy} = 0.0025$	$L_{xz} = -0.0021$
$L_{yx} = 0.0025$	$L_{yy} = 0.0334$	$L_{yz} = 0.0014$
$L_{zx} = -0.0021$	$L_{zy} = 0.0014$	$L_{zz} = 0.0258$

Moments of inertia: (kilograms * square meters)

Taken at the output coordinate system.

$I_{xx} = 0.0206$	$I_{xy} = 0.0047$	$I_{xz} = -0.0030$
$I_{yx} = 0.0047$	$I_{yy} = 0.0356$	$I_{yz} = 0.0001$
$I_{zx} = -0.0030$	$I_{zy} = 0.0001$	$I_{zz} = 0.0306$

Archivo: MirrorBogie_pivot



Mass properties of MirrorBogie_pivot

Configuration: Standard

Coordinate system: Coordinate System1

Mass = 0.4016 kilograms

Volume = 0.0003 cubic meters

Surface area = 0.13 square meters

Center of mass: (meters)

X = -0.0106

Y = -0.0467

Z = -0.0186

Distance: 209.33mm

Delta X: 180.90mm

Delta Y: 5.93mm

Delta Z: 105.17mm

Principal axes of inertia and principal moments of inertia: (kilograms * square meters)

Taken at the center of mass.

Ix = (-0.9114, 0.0553, 0.4077)

Px = 0.0004

Iy = (-0.2693, -0.8293, -0.4896)

Py = 0.0058

Iz = (0.311, -0.5561, 0.7708)

Pz = 0.006

Moments of inertia: (kilograms * square meters)

Taken at the center of mass and aligned with the output coordinate system.

Lxx = 0.0014

Lxy = -0.0002

Lxz = -0.002

Lyx = -0.0002

Lyy = 0.0059

Lyz = 0.0002

Lzx = -0.002

Lzy = 0.0002

Lzz = 0.0051

Moments of inertia: (kilograms * square meters)

Taken at the output coordinate system.

Ixx = 0.0024

Ixy = 0

Ixz = -0.002

Iyx = 0

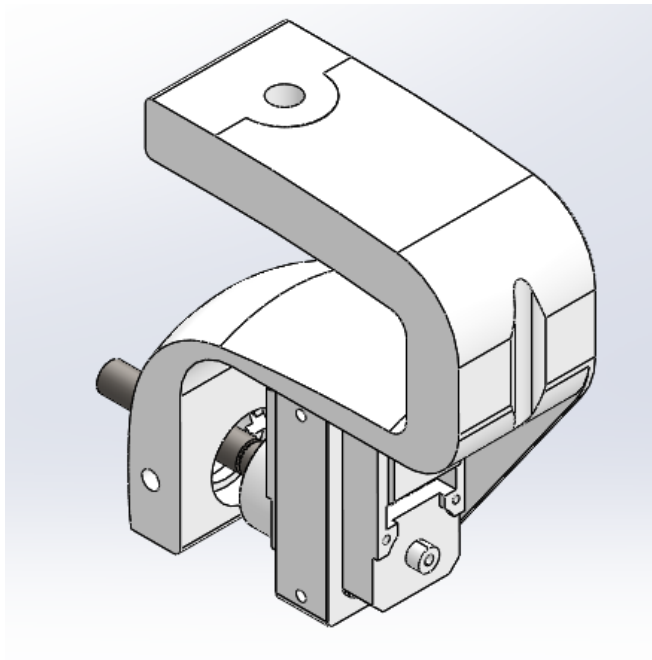
Iyy = 0.0061

Iyz = 0.0006

Izx = -0.002

Izy = 0.0006

Izz = 0.006



Mass properties of MirrorDrive Module_steerable
Configuration: Standard
Coordinate system: Coordinate System1

Distance: 376.58mm
Delta X: 258.09mm
Delta Y: 104.12mm
Delta Z: 253.71mm

3

Mass = 0.1932 kilograms

Volume = 0.0002 cubic meters

Surface area = 0.0525 square meters

Distance: 399.33mm
Delta X: 258.58mm
Delta Y: 104.15mm
Delta Z: 285.92mm

4

Center of mass: (meters)
X = -0.0002
Y = -0.039
Z = 0.0437

Principal axes of inertia and principal moments of inertia: (kilograms * square meters)
Taken at the center of mass.
Ix = (0.0168, -0.8358, 0.5489)
Iy = (-0.0153, 0.5487, 0.8359)
Iz = (-0.9997, -0.0224, -0.0035)
Px = 0.0001
Py = 0.0003
Pz = 0.0004

Moments of inertia: (kilograms * square meters)
Taken at the center of mass and aligned with the output coordinate system.
Lxx = 0.0004 Lxy = 0 Lxz = 0
Lyx = 0 Lyy = 0.0002 Lyz = -0.0001
Lzx = 0 Lzy = -0.0001 Lzz = 0.0003

Moments of inertia: (kilograms * square meters)
Taken at the output coordinate system.
Ixx = 0.001 Ixy = 0 Ixz = 0
Iyx = 0 Iyy = 0.0005 Iyz = -0.0004
Izx = 0 Izy = -0.0004 Izz = 0.0005