VOLUME = 9.7698795e+06 MM^3 SURFACE AREA = 4.5454505e+06 MM^2 AVERAGE DENSITY = 2.1672039e-06 KILOGRAM / MM^3 MASS = 2.1173321e+01 KILOGRAM

CENTER OF GRAVITY with respect to BODY_SYS coordinate frame: X Y Z -2.4530316e-01 1.1726402e+00 2.6549449e+02 MM

INERTIA with respect to BODY_SYS coordinate frame: (KILOGRAM * MM^2)

INERTIA TENSOR:

lxx lxy lxz 3.3546678e+06 -5.5712339e+02 -1.3427256e+04 lyx lyy lyz -5.5712339e+02 3.1933458e+06 -2.2806672e+03 lzx lzy lzz -1.3427256e+04 -2.2806672e+03 2.1998895e+05

INERTIA at CENTER OF GRAVITY with respect to BODY_SYS coordinate frame: (KILOGRAM * MM^2)

INERTIA TENSOR:

lxx lxy lxz 1.8621879e+06 -5.6321395e+02 -1.4806203e+04 lyx lyy lyz -5.6321395e+02 1.7008938e+06 4.3112127e+03 lzx lzy lzz -1.4806203e+04 4.3112127e+03 2.1995856e+05

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM^2)
11 12 13 2.1981256e+05 1.7009040e+06 1.8623236e+06

ROTATION MATRIX from BODY SYS orientation to PRINCIPAL AXES:

0.00901 0.00376 -0.99995 -0.00291 0.99999 0.00373 0.99996 0.00287 0.00902

ROTATION ANGLES from BODY_SYS orientation to PRINCIPAL AXES (degrees): angles about x y z -22.455 -89.441 -22.620

RADII OF GYRATION with respect to PRINCIPAL AXES: R1 R2 R3 1.0189005e+02 2.8342974e+02 2.9657400e+02 MM

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MASS PROPERTIES OF COMPONENTS OF THE ASSEMBLY (in assembly units and the BODY SYS coordinate frame)

DENSITY MASS C.G.: X Y Z

EGO2_MBASE MATERIAL: UNKNOWN

1.88027e-06 1.42456e+01 -1.32698e+00 1.71417e+00 8.25453e+01

MTEG100_TORSO MATERIAL: UNKNOWN

3.15826e-06 6.92772e+00 1.97897e+00 5.90742e-02 6.41696e+02



BODY_SYS:F5(CSYS)

X = 0.0000000000

Y = 0.0000000000

Z = 0.0000000000

ARM_L_SYS:F9(CSYS)

X = -145.290

Y = 668.027

Z = -15.2252

All References

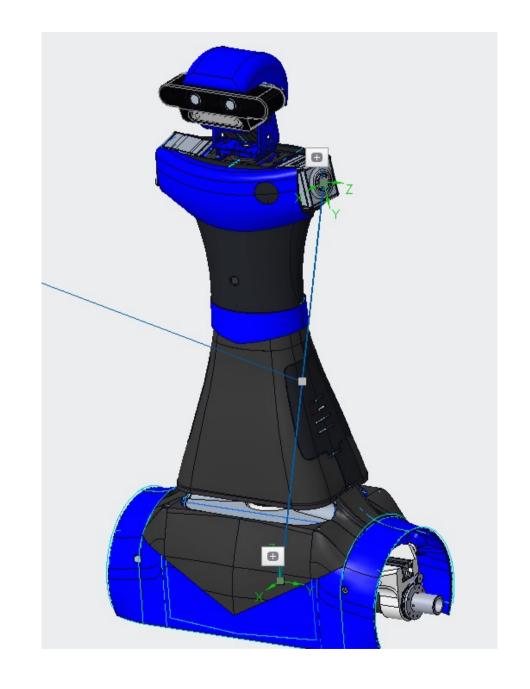
Distance = 683.814 mm

Transformation matrix =

0.984808 0.000000 0.173648 15.225205

-0.171010 0.173648 0.969846 145.290291

-0.030154 -0.984808 0.171010 668.026953



BODY_SYS:F5(CSYS)

X = 0.0000000000

Y = 0.0000000000

Z = 0.0000000000

ARM_R_SYS:F10(CSYS)

X = 145.290

Y = 668.027

Z = -15.2252

All References

Distance = 683.814 mm

Transformation matrix =

0.984808 -0.000000 0.173648 15.225205

0.171010 0.173648 -0.969846 -145.290291

-0.030154 0.984808 0.171010 668.026953



BODY_SYS:F5(CSYS)

X = 0.0000000000

Y = 0.0000000000

Z = 0.0000000000

HEAD_INTERFACE:F11(CSYS)

X = 0.0000000000

Y = 698.500

Z = 0.0000000000

All References

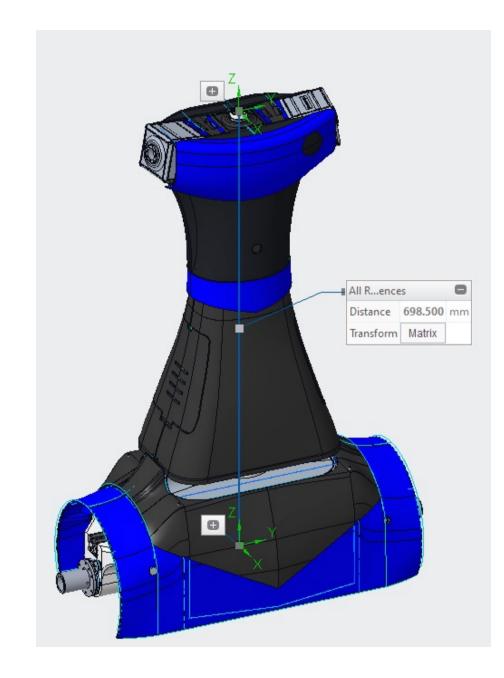
Distance = 698.500 mm

Transformation matrix =

1.000000 0.000000 0.000000 0.000000

 $0.000000 \ 1.000000 \ 0.000000 \ 0.000000$

0.000000 0.000000 1.000000 698.500000



BODY_SYS:F5(CSYS)

X = 0.0000000000

Y = 0.0000000000

Z = 0.0000000000

HEAD_INTERFACE:F43(CSYS):MTEG102_HEAD

X = 0.0000000000

Y = 753.477

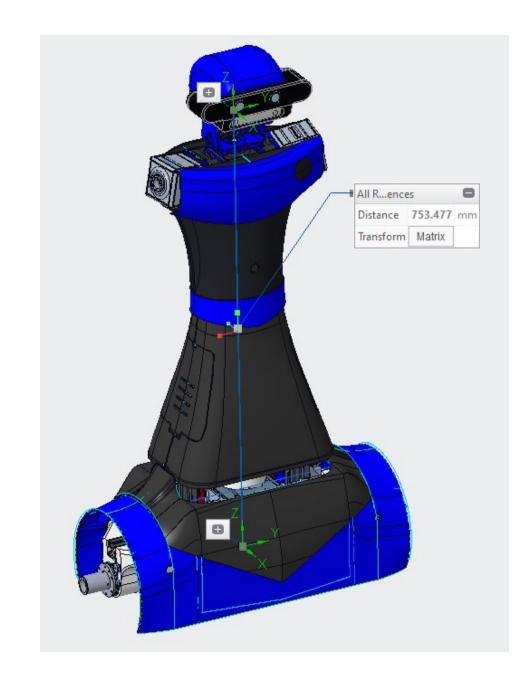
Z = 0.0000000000

All References

Distance = 753.477 mm

Transformation matrix =

- 1.000000 0.000000 -0.000000 -0.000000
- -0.000000 1.000000 -0.000000 0.000000
- -0.000000 0.000000 1.000000 753.476858



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BODY_SYS:F5(CSYS)

X = 0.0000000000

Y = 0.0000000000

Z = 0.0000000000

LIDAR_INTERFACE:F7(CSYS):RPLIDAR_A2_SLAMTEC

X = 0.0000000000

Y = 116.000

Z = 0.0000000000

All References

Distance = 116.000 mm

Transformation matrix =

1.000000 0.000000 0.000000 -0.000000

0.000000 1.000000 0.000000 -0.000000

0.000000 0.000000 1.000000 116.000000

