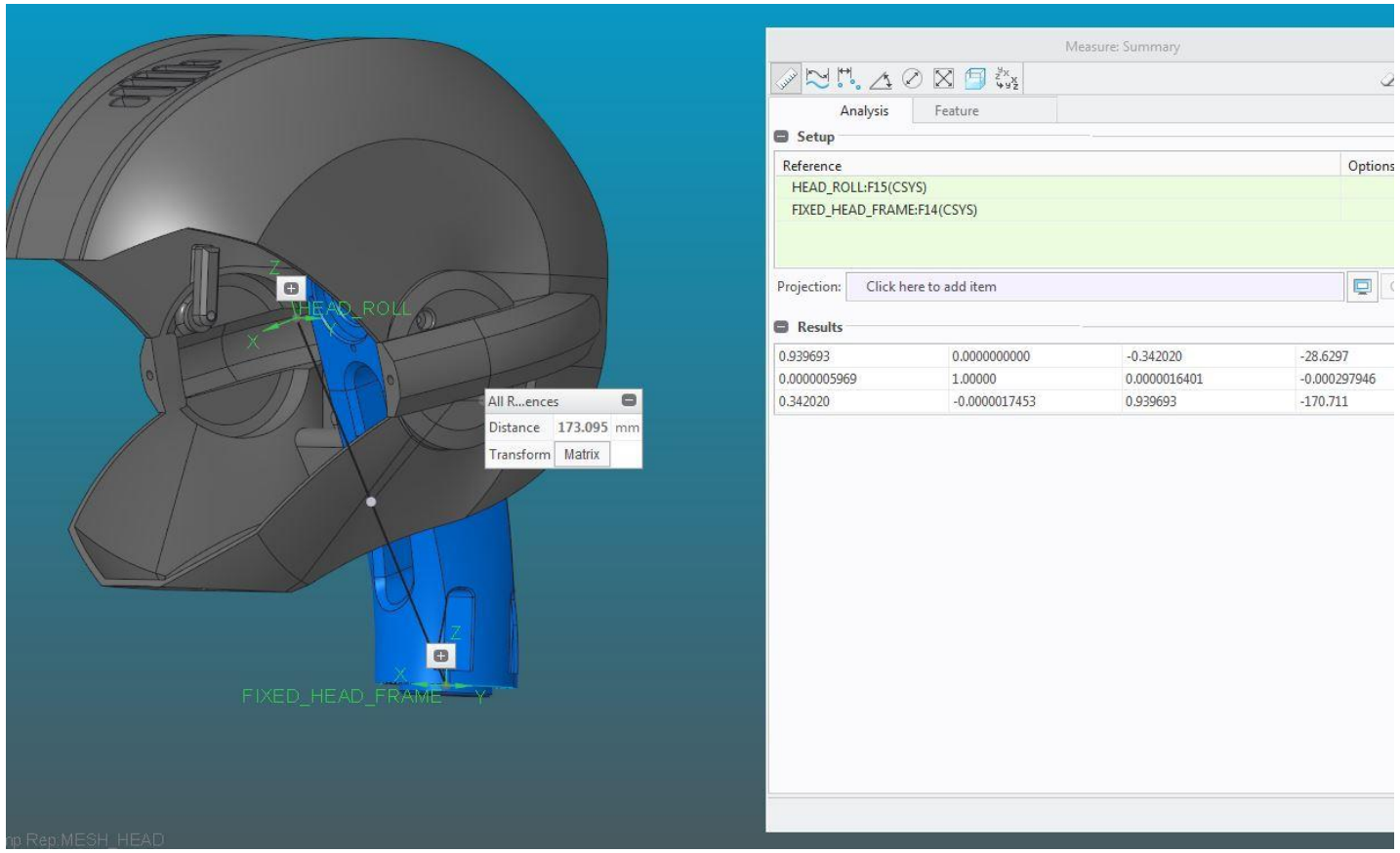
Head



VOLUME = 9.5732598e+05 MM^3
SURFACE AREA = 4.9980722e+05 MM^2
AVERAGE DENSITY = 1.3188830e-06 KILOGRAM / MM^3
MASS = 1.2626010e+00 KILOGRAM

CENTER OF GRAVITY with respect to FIXED_HEAD_FRAME coordinate frame:
X Y Z 5.7448518e+01 1.6262687e-02 1.3030019e+02 MM

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

INERTIA TENSOR:
Ixx Ixy Ixz 3.0303561e+04 -1.6379992e+00 -1.1175283e+04
Iyx Iyy Iyz -1.6379992e+00 3.7319776e+04 -2.9358063e+00
Izx Izy Izz -1.1175283e+04 -2.9358063e+00 1.2069124e+04

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

INERTIA TENSOR:
Ixx Ixy Ixz 8.8669451e+03 -4.5839239e-01 -1.7240170e+03
Iyx Iyy Iyz -4.5839239e-01 1.1716158e+04 -2.6031540e-01
Izx Izy Izz -1.7240170e+03 -2.6031540e-01 7.9021213e+03

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM^2)
I1 I2 I3 6.5942941e+03 1.0174772e+04 1.1716158e+04

ROTATION MATRIX from FIXED_HEAD_FRAME orientation to PRINCIPAL AXES:
0.60437 0.79670 -0.00016
0.00009 0.00013 1.00000
0.79670 -0.60437 0.00001

ROTATION ANGLES from FIXED_HEAD_FRAME orientation to PRINCIPAL AXES (degrees):
angles about x y z -90.000 0.000 -52.816

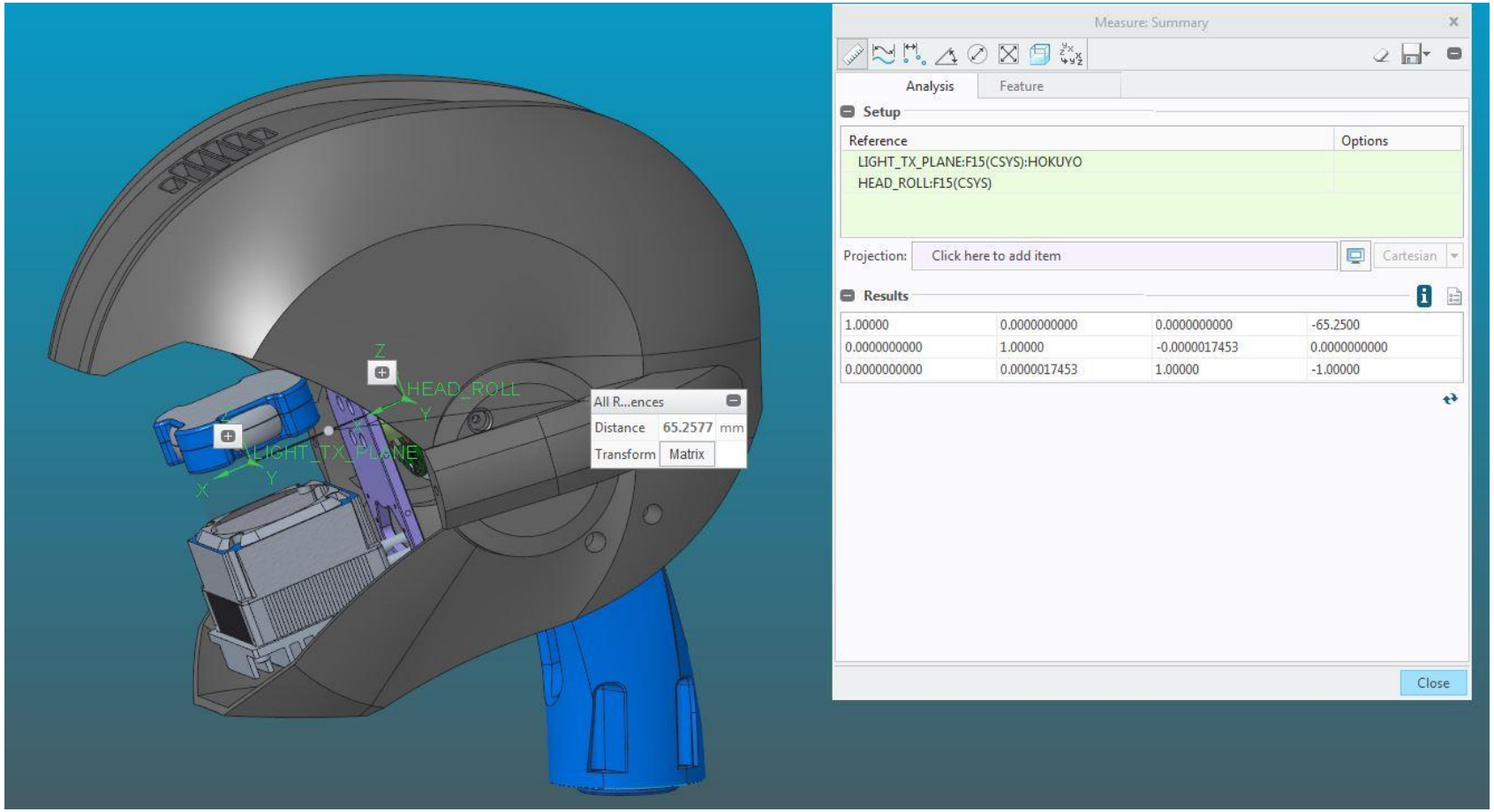
RADII OF GYRATION with respect to PRINCIPAL AXES:
R1 R2 R3 7.2268842e+01 8.9769600e+01 9.6329555e+01 MM

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

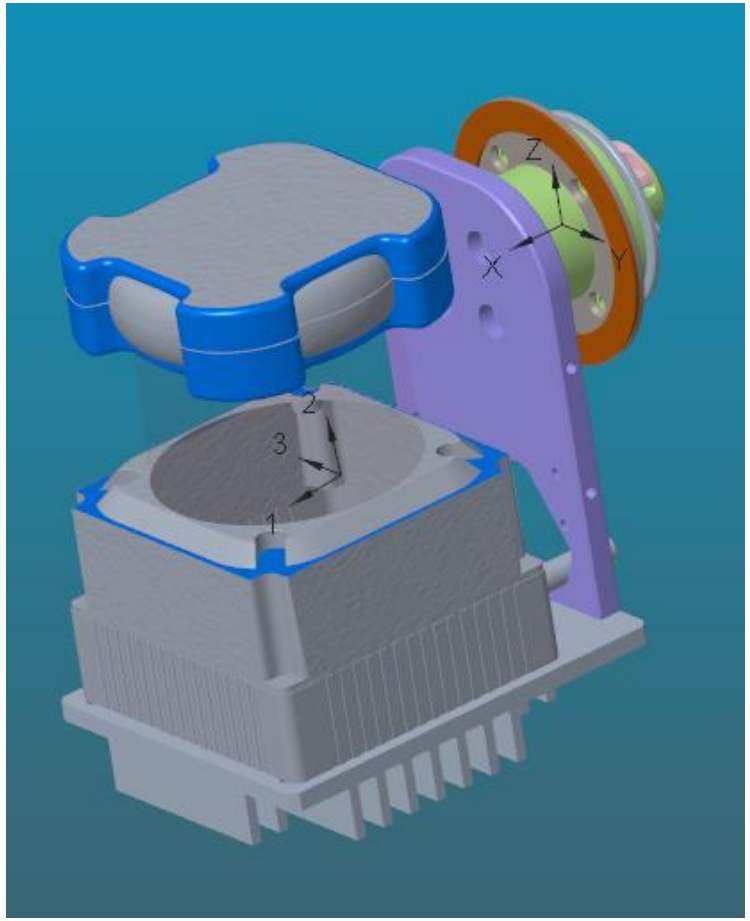
DENSITY MASS C.G.: X Y Z

CG8200A0 MATERIAL: UNKNOWN
1.31888e-06 1.26260e+00 5.74485e+01 1.62627e-02 1.30300e+02

Head Laser Roll Frame Position



Laser



VOLUME = 2.9710037e+05 MM^3
SURFACE AREA = 7.1221233e+04 MM^2
AVERAGE DENSITY = 1.8765272e-06 KILOGRAM / MM^3
MASS = 5.5751693e-01 KILOGRAM

CENTER OF GRAVITY with respect to HEAD_ROLL coordinate frame:
X Y Z 5.4246456e+01 -9.3963721e-03 -2.5596890e+01 MM

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

INERTIA TENSOR:
Ixx Ixy Ixz 2.3486269e+03 2.1187861e-01 9.4912322e+02
Iyx Iyy Iyz 2.1187861e-01 6.9427745e+03 -2.4538281e-01
Izx Izy Izz 9.4912322e+02 -2.4538281e-01 5.5790254e+03

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

INERTIA TENSOR:
Ixx Ixy Ixz 1.9833413e+03 -7.2298853e-02 1.7498835e+02
Iyx Iyy Iyz -7.2298853e-02 4.9368962e+03 -1.1129001e-01
Izx Izy Izz 1.7498835e+02 -1.1129001e-01 3.9384326e+03

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM^2)
I1 I2 I3 1.9678026e+03 3.9539712e+03 4.9368962e+03

ROTATION MATRIX from HEAD_ROLL orientation to PRINCIPAL AXES:
0.99608 0.08845 0.00003
0.00002 0.00012 -1.00000
-0.08845 0.99608 0.00012

ROTATION ANGLES from HEAD_ROLL orientation to PRINCIPAL AXES (degrees):
angles about x y z 89.993 0.000 -5.074

RADII OF GYRATION with respect to PRINCIPAL AXES:
R1 R2 R3 5.9410299e+01 8.4214664e+01 9.4101808e+01 MM

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

DENSITY MASS C.G.: X Y Z

CG8200A0 MATERIAL: UNKNOWN
1.87653e-06 5.57517e-01 5.42465e+01 -9.39637e-03 -2.55969e+01