Implemented functions:

· **axisangle2matrix.m**

- Explanation: Takes the Euler Principal Axis and Angle and returns them as a Rotation Matrix. The Euler Principal Axis is normalized and the Euler Principal Angle has to be en degrees.

- Inputs: Euler Principal Axis, Euler Principal Angle

- Output: Rotation Matrix

· **quaternion_R.m**

- Explanation: Takes a Quaternion and returns the Rotation Matrix.

- Inputs: Quaternion

- Output: Rotation Matrix

· **Angles_R.m**

- Explanation: Takes the Euler Angles and transforms them into a Rotation Matrix.

- Inputs: yaw, pitch, roll

- Output: Rotation Matrix

· **rotvecR.m**

- Explanation: Takes a Rotation Vector and return its Rotation Matrix.

- Inputs: Rotation Vector

- Output: Rotation Matrix

· **Raxisangle.m**

- Explanation: Takes a Rotation Matrix and return its Euler Principal Axis and Angle.

- Inputs: Rotation Matrix

- Output: Euler Principal Axis and Angle

· **RotationQuat.m**

- Explanation: Takes a Rotation Matrix and return its Quaternion.

- Inputs: Rotation Matrix

- Output: Quaternion

· **EulerRotationAngles.m**

- Explanation: Takes a Rotation Matrix and return its Euler Angles.
- Inputs: Rotation Matrix
- Output: pitch, yaw, roll

· **Rvecrot.m**

- Explanation: Takes a Rotation Matrix and return its Rotation Vector.
- Inputs: Rotation Matrix
- Output: Rotation Vector