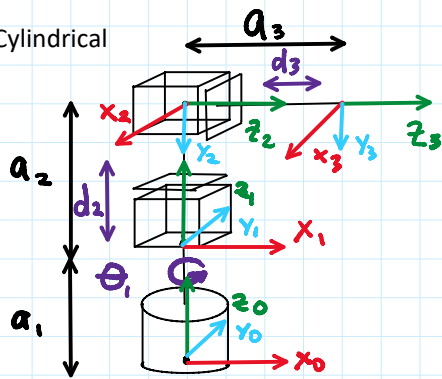


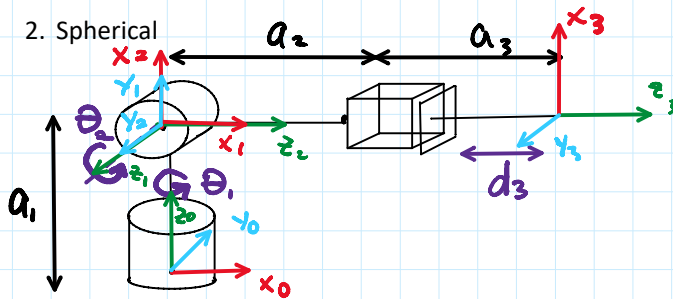
Kinematic Diagram and D-H Frame Rules of 3 DOF Spatial Manipulator

Thursday, September 9, 2021 8:10 PM

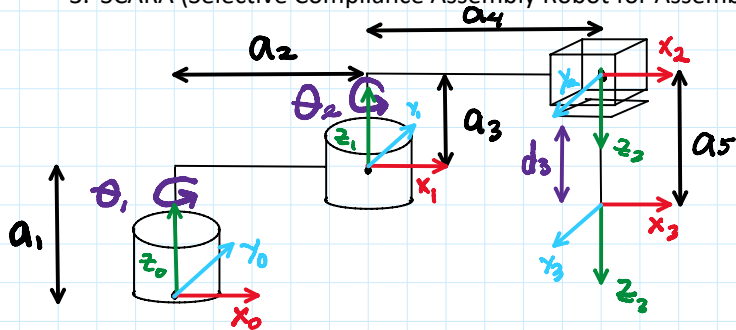
1. Cylindrical



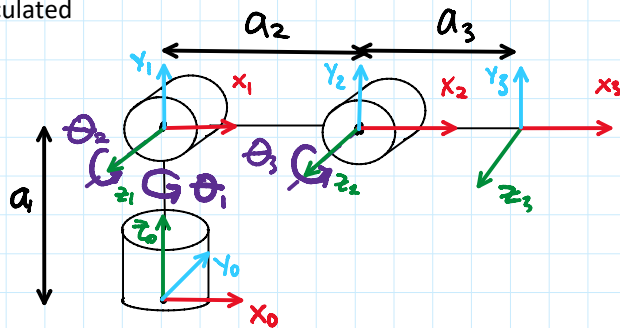
2. Spherical



3. SCARA (Selective Compliance Assembly Robot for Assembly)



4. Articulated



DH Frame Rules

Rule 1: The Z axis must be the axis of rotation for a revolute/twisting/spherical joint, or the direction of motion for a prismatic joint.

Rule 2: The X axis must be perpendicular both to its own Z axis, and the Z axis of the frame before it.

Rule 3: Each X axis must intersect the Z axis of the frame before it.

Rules for complying Rule 3:

- Rotate the axis until it hits the other.
- Or translate the axis until it hits the other.

Rule 4: All frames must follow the right-hand rule.

5. Coordinate / Cartesian

