Robotic Arms Library
2D – 1 – RR (modified DH)
2D – 2 – RRR (modified DH)
2D – 2 – RRR (standard DH)
3D – 1 – RRR (modified DH)
3D – 1 – RRR (standard DH)
3D – 2 – RRP (standard DH)
3D – 4 – RPP (Cylindrical Robot, modified DH)
3D – 4 – RPP (Cylindrical Robot, standard DH)
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3D – 4 – RRR (Spherical Wrist, standard DH)

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3D – 5 – RRRP (modified DH)
3D – 5 – RRRP (standard DH)
3D – 6 – PRRR (modified DH)
3D – 6 – PRRR (standard DH)
DH Parameters - Summary

If the link frame have been attached to the links according to our convention, the following definitions of the DH parameters are valid:

Standard form:
- \( a_i \) - The distance from \( \hat{Z}_{i-1} \) to \( \hat{Z}_i \) measured along \( \hat{X}_i \)
- \( \alpha_i \) - The angle between \( \hat{Z}_{i-1} \) and \( \hat{Z}_i \) measured about \( \hat{X}_i \)
- \( d_i \) - The distance from \( \hat{X}_{i-1} \) to \( \hat{X}_i \) measured along \( \hat{Z}_{i-1} \)
- \( \theta_i \) - The angle between \( \hat{X}_{i-1} \) and \( \hat{X}_i \) measured about \( \hat{Z}_{i-1} \)

Modified form:
- \( a_{i-1} \) - The distance from \( \hat{Z}_{i-1} \) to \( \hat{Z}_i \) measured along \( \hat{X}_{i-1} \)
- \( \alpha_{i-1} \) - The angle between \( \hat{Z}_{i-1} \) and \( \hat{Z}_i \) measured about \( \hat{X}_{i-1} \)
- \( d_i \) - The distance from \( \hat{X}_{i-1} \) to \( \hat{X}_i \) measured along \( \hat{Z}_i \)
- \( \theta_i \) - The angle between \( \hat{X}_{i-1} \) and \( \hat{X}_i \) measured about \( \hat{Z}_i \)

**Note:** \( a_i \geq 0 \quad \alpha_i \quad d_i \quad \theta_i \) are signed quantities
DH Parameters – Standard / Modified Approach

(a) Standard form

(b) Modified form