

Assignment A

1. Derive equations for θ_1 , θ_2 , and θ_3 for the RRR manipulator configuration in three-space as shown in Figure 1.

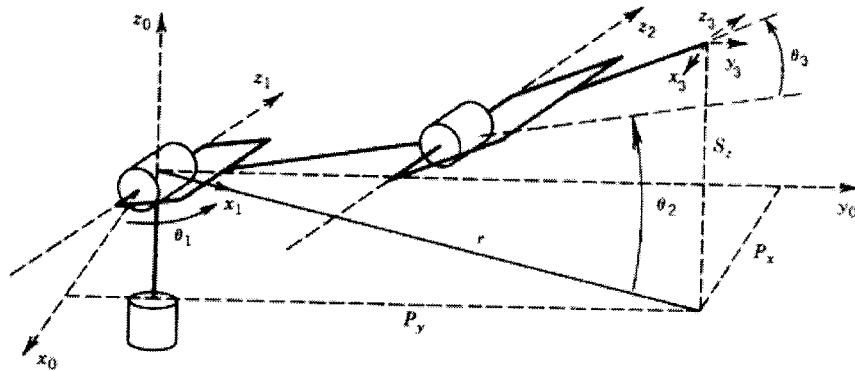


Fig. 1 Simplified drawing of the RRR manipulator with transformation frames appropriately marked.

2. Derive equations for θ_1 , θ_2 , and l_3 for the RRP manipulator configuration in two-space as shown in Figure 2.

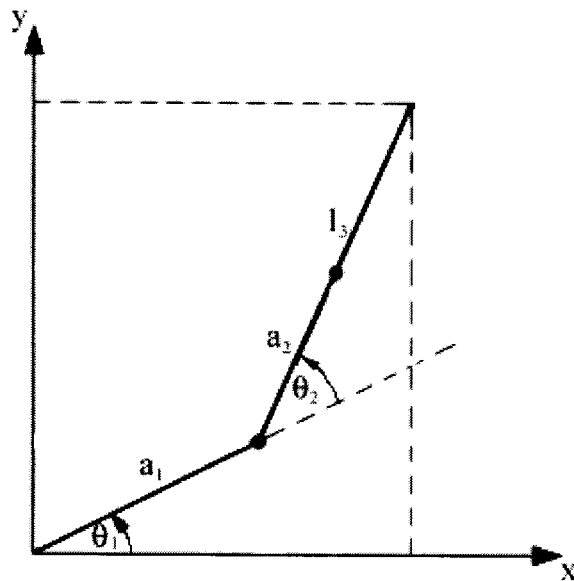


Fig. 2 Projection onto the plane formed by all three links