1. Direct kinematics modeling
   1. D-H parameter table
      1. Structure A

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 - 1 |  | 0 |  |  |
| 1 – 2 |  |  |  | 0 |
| 2 - 3 |  | 0 |  | 0 |

* + 1. Structure B

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 - 1 |  |  |  |  |
| 1 – 2 |  |  |  |  |
| 2 - 3 |  |  |  |  |

1. Inverse kinematics modeling
   1. Derivation process

The equation of the transformation matrix is as follows.



(To Structure B: )











 (To Structure B: )

Based on triangular substitution

 

 



 





(To Structure B: )



 (To Structure B: )

 (To Structure B: )

The sum of the squares of the three equations is











(To Structure B: )







(To Structure B: )



(To Structure B: )

 

 (To Structure B: )





(To Structure B: )



(To Structure B:)