

Jv5 =

```
[ -sin(t1)*(l3*cos(t2 + t3) + l2*cos(t2)), -cos(t1)*(l3*sin(t2 + t3) + l2*sin(t2)),
l3*sin(t2 + t3)*cos(t1), 0, 0]
[ cos(t1)*(l3*cos(t2 + t3) + l2*cos(t2)), -sin(t1)*(l3*sin(t2 + t3) + l2*sin(t2)),
l3*sin(t2 + t3)*sin(t1), 0, 0]
[                                0,                                l3*cos(t2 + t3) + l2*cos(t2)
l3*cos(t2 + t3), 0, 0]
```

J\_plus =

```
[ -sin(t1)/(l3*cos(t2 + t3) + l2*cos(t2)),                                cos
(t1)/(l3*cos(t2 + t3) + l2*cos(t2)),                                0]
[ (cos(t2 + t3)*cos(t1))/(l2*sin(t3))
(cos(t2 + t3)*sin(t1))/(l2*sin(t3)),                                sin(t2 + t3)/(l2*sin(t3))]
[ -(cos(t1)*(l3*cos(t2 + t3) + l2*cos(t2)))/(l2*l3*sin(t3)), -(sin(t1)*(l3*cos(t2
t3) + l2*cos(t2)))/(l2*l3*sin(t3)), -(l3*sin(t2 + t3) + l2*sin(t2))/(l2*l3*sin(t3))]
[                                0
0,                                0]
[                                0
0,                                0]
```

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