Congratulations! You passed!

Grade received 100% To pass 80% or higher

Go to next item

1. When the robot is at an arbitrary configuration θ, does the screw axis corresponding to motion along joint i, represented in {b}, depend on θ_{i-1}? 1 / 1 point

- (●) No.
- ( ) Yes.

Correct
Joint $i-1$ is not between joint i and {b}, so it does not affect the representation of the screw axis in {b}.

2. When the robot arm is at its home (zero) configuration, the axis of joint 3, a revolute joint, passes through the point $(3,0,0)$ in the {b} frame. The axis of rotation is aligned with the $\hat{z}_b$-axis of the {b} frame. What is the screw axis $\mathcal{B}_3$? 1 / 1 point

- ( ) $(0,0,1,-3,0,0)$
- (●) $(0,0,1,0,-3,0)$
- ( ) $(0,0,1,0,0,-3)$

1. When the robot is at an arbi
onent is $(0,0,1)$ since the rotation axis is aligned with the $\hat{z}_b$-axis. The linear component $(0,-3,0)$ is calculated by taking a
- (●) No.
- ( ) Yes.

Correct
Joint $i-1$ is not bet

2. When the robot arm is at its
rotation is aligned with the $\hat{z}$
- ( ) $(0,0,1,-3,0,0)$
- (●) $(0,0,1,0,-3,0)$
- ( ) $(0,0,1,0,0,-3)$

Correct
Yes! The angular comu