

HW3.3. Find the rotation matrix of a body after a constant angular velocity is applied

Suppose that a body (frame 1) is originally aligned with a reference frame (frame 0). We then rotate the body around the origin of frame 0 at a constant angular velocity

$$w_{01} = \begin{bmatrix} 2.83 \\ 2.83 \\ 1.65 \end{bmatrix}$$

.

for a duration of $t=8.98$ seconds. What is the orientation of the body with respect to the reference frame after the motion?

Python

```
import numpy as np

w01 = np.array([[2.83], [2.83], [1.65]])
t = 8.98
```

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$R_{01} =$



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Single attempt

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Homework 3

Assessment overview

Total 23/23 points:

Score: 80%

Question

Value: 2

History: 1, 2, 2, 2

Awarded points: 2/2

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