

Simulation Assignment 1

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Variables Description:

| Variable | Data Type | Initialization | Definition | Operations |
|-------------|-----------|----------------|---|---------------------------------|
| time | double | 0 | Time | time=time+deltaTime; |
| angVelocity | double | 0 | Angular Velocity | angVelocity=(Torque*time)/Iyy |
| Iyy | int | 3800 | moment of intertie of the helicopter in y axis | |
| velocity | double | 0 | Velocity/Speed of helicopter | velocity+=angVelocity*deltaTime |
| Torque | double | 0.3 | the torque applied to helicopter | |
| deltaTime | double | 0.01 | | |
| yaw | double | 0 | yaw of the helicopter | yaw+=velocity*deltaTime |
| i | int | | loop increment variable | i++ |

Output:

```
E:\Masters Study\2nd semester\Simulation Engineering Assignment\assignment 1\RunAssignment1.exe
***** Simulation Play *****
When Time = 0 then Yaw = 0
When Time = 1 then Yaw = 1.35553e-005
When Time = 2 then Yaw = 0.000106847
When Time = 3 then Yaw = 0.000358824
When Time = 4 then Yaw = 0.000848432
When Time = 5 then Yaw = 0.00165462
When Time = 6 then Yaw = 0.00285633
When Time = 7 then Yaw = 0.00453252
When Time = 8 then Yaw = 0.00676213
When Time = 9 then Yaw = 0.0096241
When Time = 10 then Yaw = 0.0131974
***** Simulation Teminated *****

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Process exited after 0.1253 seconds with return value 0
Press any key to continue . . .
```