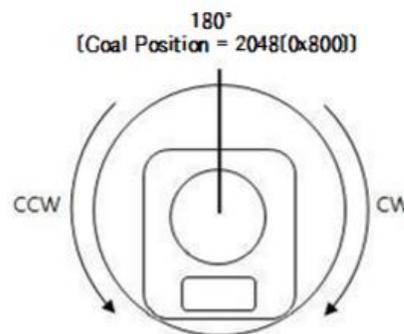


DARwIn-OP Introduction [DASL-104] Summer/2017

Homework #2

Questions:

- 1 – What type of Dynamixel DARwIn-OP uses? What is the maximum speed[RPM] and stall torque [Kg.cm] based on 12V voltage?
- 2 – What are the advantages and disadvantages of *Dynamixel Wizard*.
- 3 – List two applications for PD and PID controllers (add some sketches to argument the answer).
- 4 – What is the command (Ubuntu) which access DARwIn-OP's main file directory?
- 5 – If the current speed of Dynamixel is 0, and Goal acceleration is 10. What is the speed of Dynamixel after 1 second? (**Show calculations**)
- 6 – Based on the picture bellow:
 - # If the Dynamixel is set to 0, that means the maximum rpm of the servo is used with no controlling the speed.
 - # On the other hand, if the Dynamixel is set to 1023, than the speed changes to 117.07rpm.



What is the moving speed if the Dynamixel is set to 300? (**Show calculations**)