

ME 285 Mechatronic Systems Engineering

Homework #7: Stepper Motors and Motor Sizing

1. Design an interface (i.e., show connections, and specify any needed components on a schematic diagram) between the Handy Board and a 12 V bipolar stepper motor (such as the H17-070 by Applied Motion Products, http://www.applied-motion.com/products/step_motors/17HT.html). Design your interface around a stepper motor driver IC, such as the MC3749. You will need to use an external power source for the motor.
2. Justify the choice of one of the motors used in your term project by calculation, and show that it is sized properly for its application. If you scrounged the motor and are unable to get a data sheet for it, demonstrate your calculation for a similar motor that is commercially available.