

Name: Junzhe Wu Net id: Junzhew3

1. Look over the online documentation for the PMOD DHB1 board. What kind of motors can you control with this PMOD?
DC motors and bipolar stepper motor.

2. What is the maximum number of motors that you can independently control with the PMOD DHB1 board?
Two DC motors or a single bipolar stepper motor.

3. What is the on resistance of the left and right output branch of the H-bridge?

HS FET on resistance	VM = 5 V, IO = 500 mA, TJ = 25°C	200 mΩ
	VM = 5 V, IO = 500 mA, TJ = 85°C	325 mΩ
	VM = 2.7 V, IO = 500 mA, TJ = 25°C	250 mΩ
	VM = 2.7 V, IO = 500 mA, TJ = 85°C	350 mΩ
LS FET on resistance	VM = 5 V, IO = 500 mA, TJ = 25°C	160 mΩ
	VM = 5 V, IO = 500 mA, TJ = 85°C	275 mΩ
	VM = 2.7 V, IO = 500 mA, TJ = 25°C	200 mΩ
	VM = 2.7 V, IO = 500 mA, TJ = 85°C	300 mΩ

4. The PMOD board will be connected to the sensor board where the OpalKelly FPGA board is connected. What are the pins on the OpalKelly FPGA that you will use to control the motor?
DIR pins and EN pins.