ELEC3800: IoT Lab07: myRio I2C Compass Matt Bennett Fall 2017 10/19/17

I2C Registers to Configure

Hex address of Config Reg A = 0x00

Configuration Register A

Bit	7	6	5	4	3	2	1	0
(MSB on right)	0	1	1	1	0	0	0	0

Hex value of Config Reg A = 0x70

Configuration Register B

Bit	7	6	5	4	3	2	1	0
(MSB on right)	0	0	1	0	0	0	0	0

Hex value of Config Reg B = 0x20

Mode Register

Bit	7	6	5	4	3	2	1	0
(MSB on right)	0	0	0	0	0	0	0	0

Hex value of Mode Reg = 0x00

Loop to Get and Process each Compass Value over I2C

X Reg Address = 0x03

Circuit Board: Analog Input

Compass Module	myRio Description	myRio Pin number of Connector A
DRDY	Digital In, Data Ready vi	11
VDD	+3.3 V on myRio	33
SDA (I2C Serial Data Line)	I2C SDA	34
SCL (I2C Serial Clock Line)	I2C SCL	32





