

BruControl Interface Wiring Map: Arduino UNO (Firmware v43)

Connection ->		Serial (USB)	<- Connection
Wiring Map ->		Default	<- Wiring Map
Firmware Prefix ->		BruControl.43.UNO.	<- Firmware Prefix
Firmware Suffix ->		S	<- Firmware Suffix
Interface pin #	BruControl port #		User Description (record device type and device connected)
0	N/A	N/C	
1	N/A	N/C	
2	2	D, C	
3	3	D, P, C	
4	4	D	
5	5	D, P, O*	
6	6	D, P	
7	7	D	
8	8	D	
9	9	D, P	
10	10	D, P	
11	11	D, P	
12	12	D	
13	13	D, L	
A0	100	A	
A1	101	A	
A2	102	A	
A3	103	A	
A4	104	A	
A5	105	A	

Notes / Key

Instructions: Select the column for firmware used. Wire each Interface PIN per possible input/outputs. Select device's corresponding port in BruControl.

Interface Wiring Map Codes:

D = Digital Input or Digital Output (Note: Input can be 5V active high or low, output is 5V)

P = PWM Output (Note: Output is 5V peak. Frequency is ~500 or ~1000 Hz. Create Analog Output using RC filter or RC/op-amp.)

C = Counter Input (Note: trigger is falling edge. Sensor must pull up/down 5V else external resistor needed)

A = Analog Input (Note: range is compared to AREF, which is tied to 5V... also 5V max)

O = 1-Wire Input (*Note: all 1-wire data pins must be tied to pin 5 or 6 per above only but are addressed by virtual ports 200 - 202 in BruControl).

L = Onboard LED (Note: connecting to "Active Low" or "Low Trigger" relay board may light LED when device is disabled in BruControl)

Duty Cycle and Hysteresis devices use a Digital Output (D).

PID devices on pins with both Digital (D) and PWM Output (P) will use PWM Output. For binary switches (e.g. SSR), select pin without PWM Output (P).

Analog Reference pin (AREF) should be tied to +5V or less to measure analog voltage inputs.

Maximum current (sink or source) per pin is 15mA. Recommend to keep each equal or less than 5mA .