Current
Sensor
Driver pin   6 Fault   6 IN

12V   2.2V   6 Reset
       ???

2.7V   5 Reset 4 Fault   4 IN   12V
???

GND   5 Fault   5 IN   4 Reset   5V

3 Fault   3 IN   2 Reset   1 Fault   1 IN

GND   3 Reset   2 Fault   2 IN   1 Reset

IGBT 1

IN = PWM
5V Arduino supplied
PWM library used
rather than standard
Arduino

5V   A1   GND

● Arduino

10k
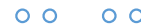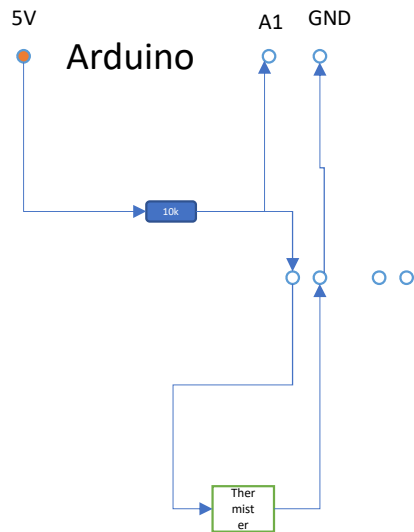
Ther
mist
er

12v to 5v
converter
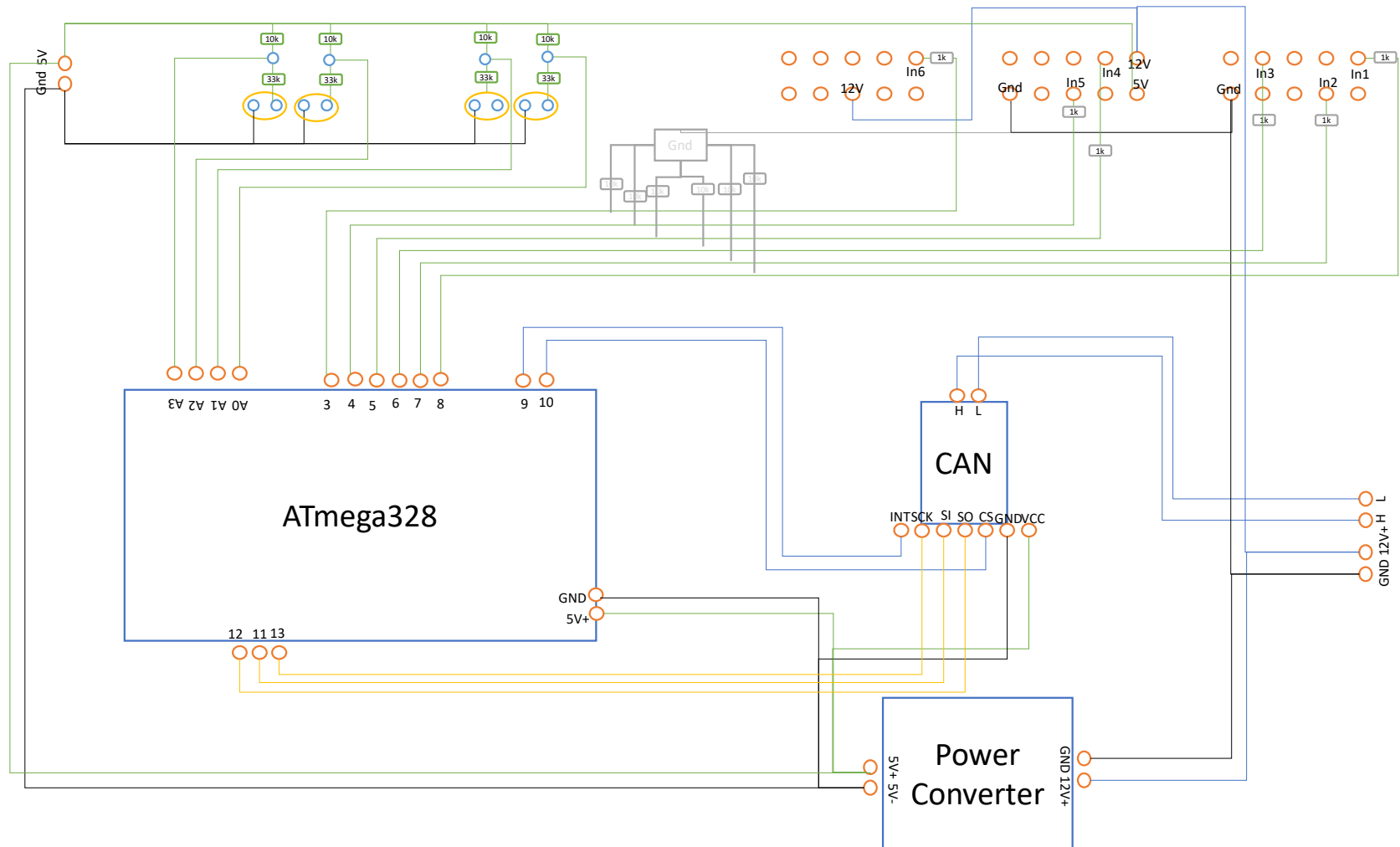
Single IGBT/Thermister Test Wiring

Gnd 5V

10k
33k

In6
12V

In5
In4
12V
5V

In3

Fault-1
In2
In1
Reset-1

1k
4.7k
10k

Gnd
4.7k
10k

Gnd

A0 A1 A2 A3
3 4 5 6 7 8
9 10

ATmega328

CAN

H L

INT SCK SI SO CS GND VCC

L
12V+ H
GND 12V+

GND
5V+

12 11 13

10k
33k
1k
1k
10k

5V+ 5V-

Power Converter

GND 12V+

Board Interconnectors

01C
10kΩ

Micro controller

NotFault

Normally High
Low on Fault

Capacitor
To Ground?

3.3 V or 5.0 V

10-20kHz

01B
1kΩ

Micro controller

01C
10kΩ

IGBT Control

Fault

Reset

52C
34kΩ

Micro controller

01C
10kΩ

52C
34kΩ

Micro controller

01C
10kΩ

472
4.7kΩ

Micro controller

472
4.7kΩ

NotReset

Pulse low to
remove fault (also
control reqd low)

Thermistor plug

(looking towards plug on control board)