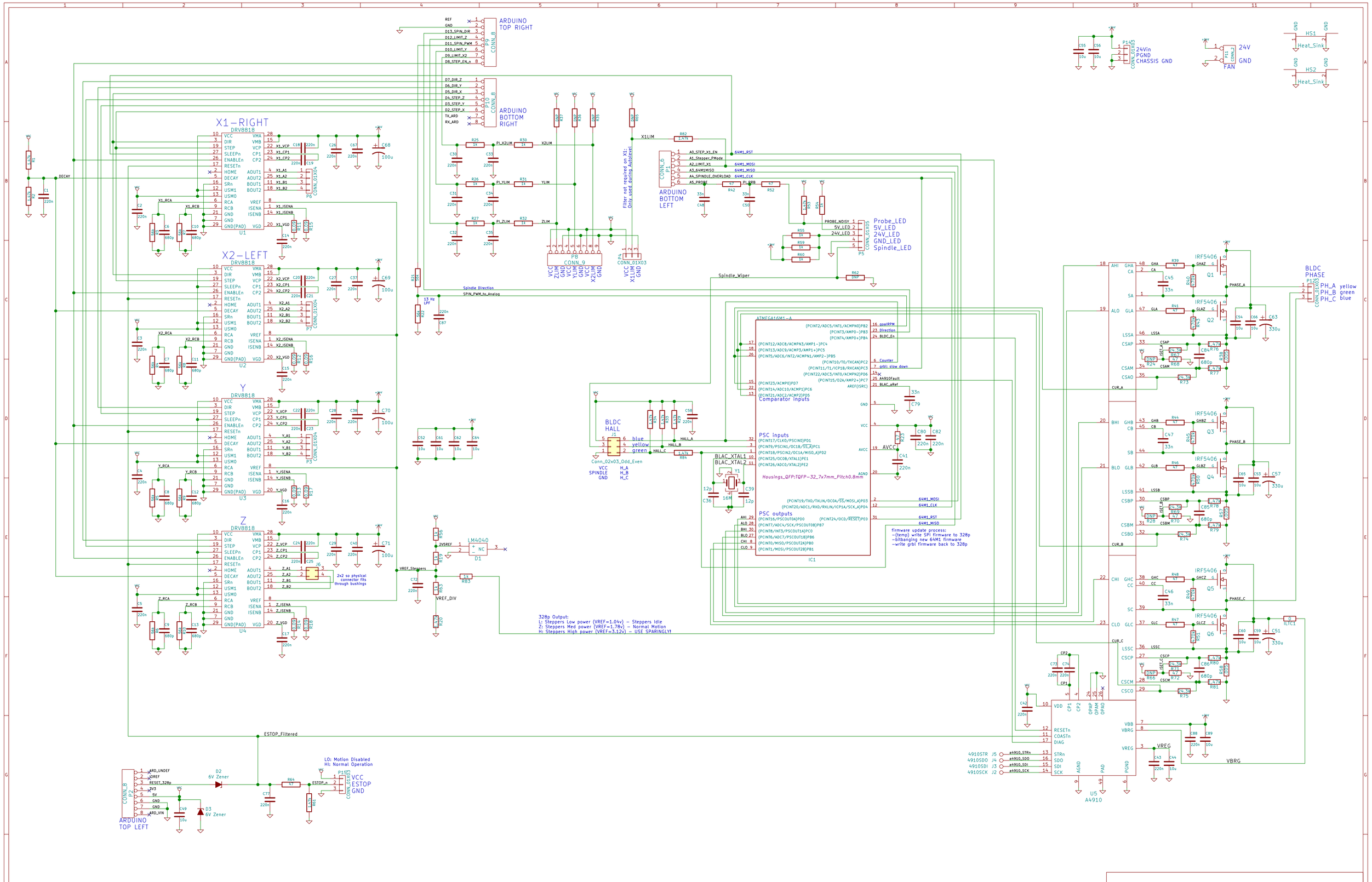
ARDUINO TOP RIGHT
ARDUINO BOTTOM RIGHT
ARDUINO BOTTOM LEFT
ARDUINO TOP LEFT
X1 – RIGHT
X2 – LEFT
Y
Z
DRV8818
ATMEGA16M1 – A
IC1
BLDC HALL
BLDC PHASE
Probe_LED
5V_LED
24V_LED
GND_LED
Spindle_LED
24Vin
PGND
CHASSIS GND
24V
GND
FAN
HS1
HS2
Heat_Sink
Comparator inputs
PSC inputs
PSC outputs
Housings_QFP:TQFP-32_7x7mm_Pitch0.8mm
firmware update process:
–(temp) write SPI firmware to 328p
–bitbanging new 64M1 firmware
–write grbl firmware back to 328p
328p Output:
L: Steppers Low power (VREF=1.04v) – Steppers Idle
Z: Steppers Med power (VREF=1.78v) – Normal Motion
H: Steppers High power (VREF=3.12v) – USE SPARINGLY!
LO: Motion Disabled
HI: Normal Operation
2x2 so physical connector fits through bushings
Filter not required on X1. Only used during Autoleveling
Spindle_Wiper
Spindle Direction
SPIN_PWM_to_Analog
ESTOP_Filtered
VREF_Steppers
VREF_DIV
4910STR J5
4910SDO J4
4910SDI J3
4910SCK J2
A4910
VREG
VBRG
LM4040
Linsight, Inc.
Sheet: /
File: GrBLDC.sch
Title: GrBLDCv3 – CNC Stepper & BLDC Arduino Shield
Size: A2
Date:
Rev: PCB:B BOM:2
KiCad E.D.A. kicad (5.1.0-0)
Id: 1/1