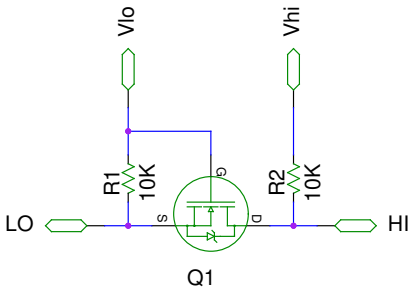

Level Converter

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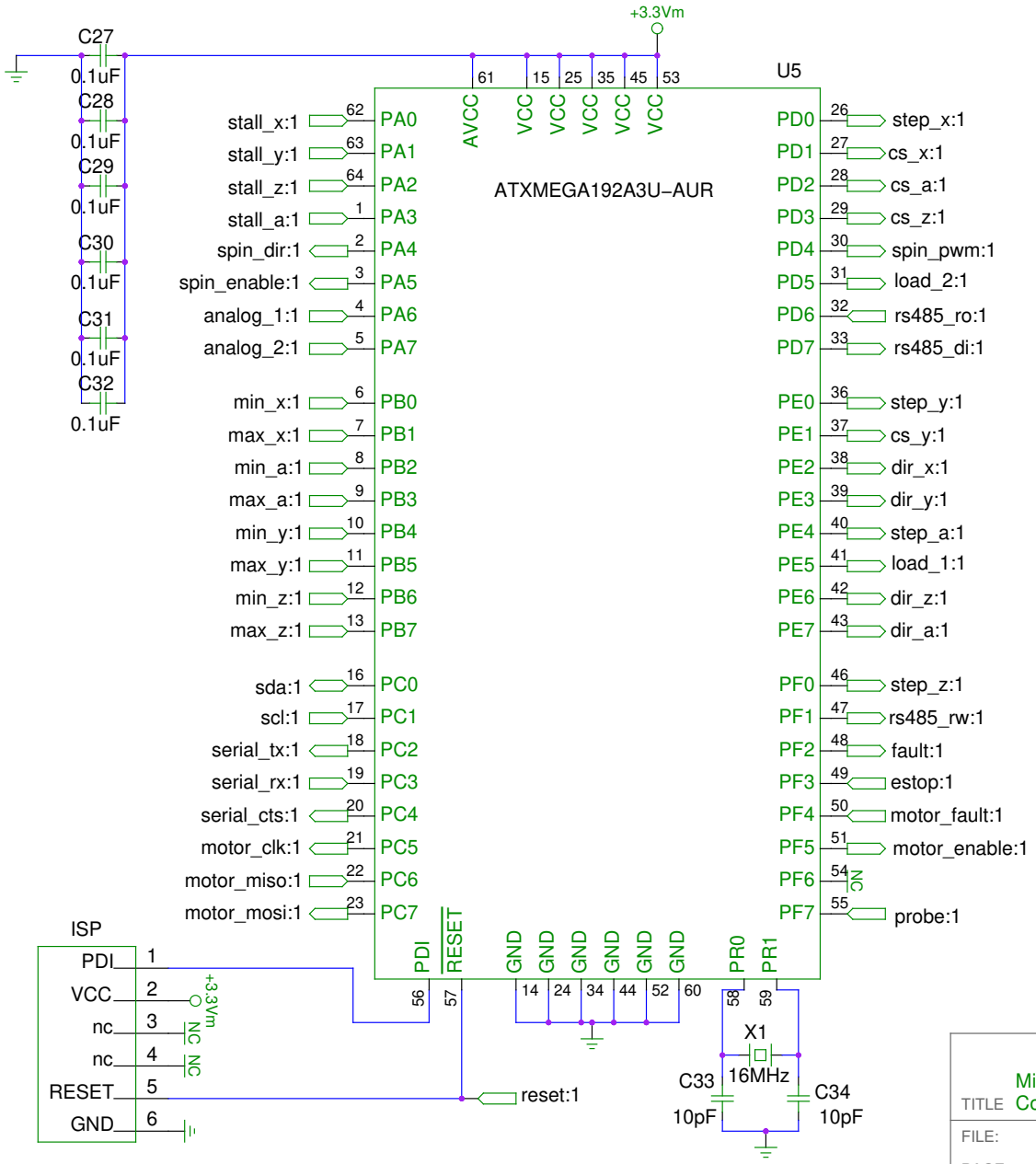

Microprocessor

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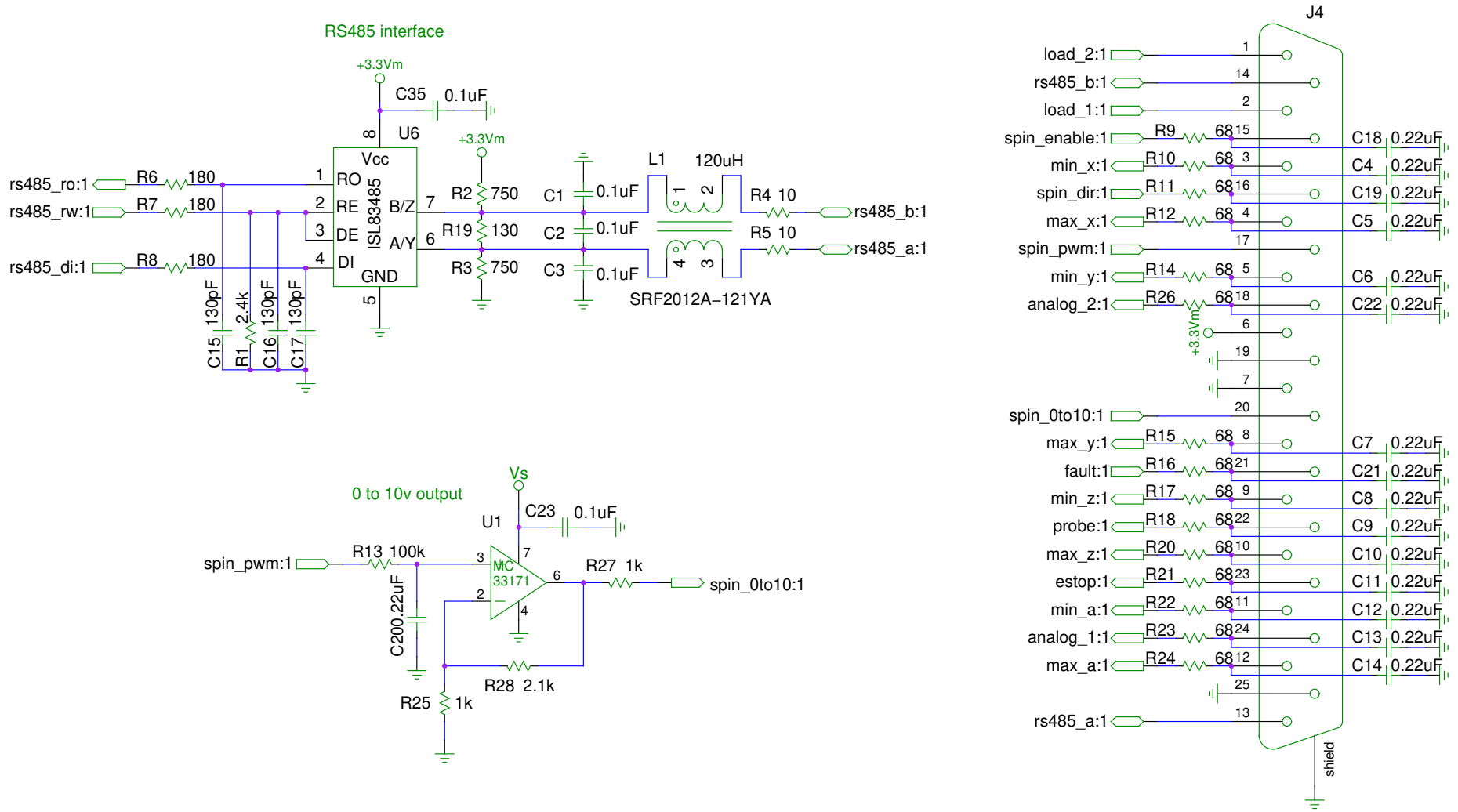

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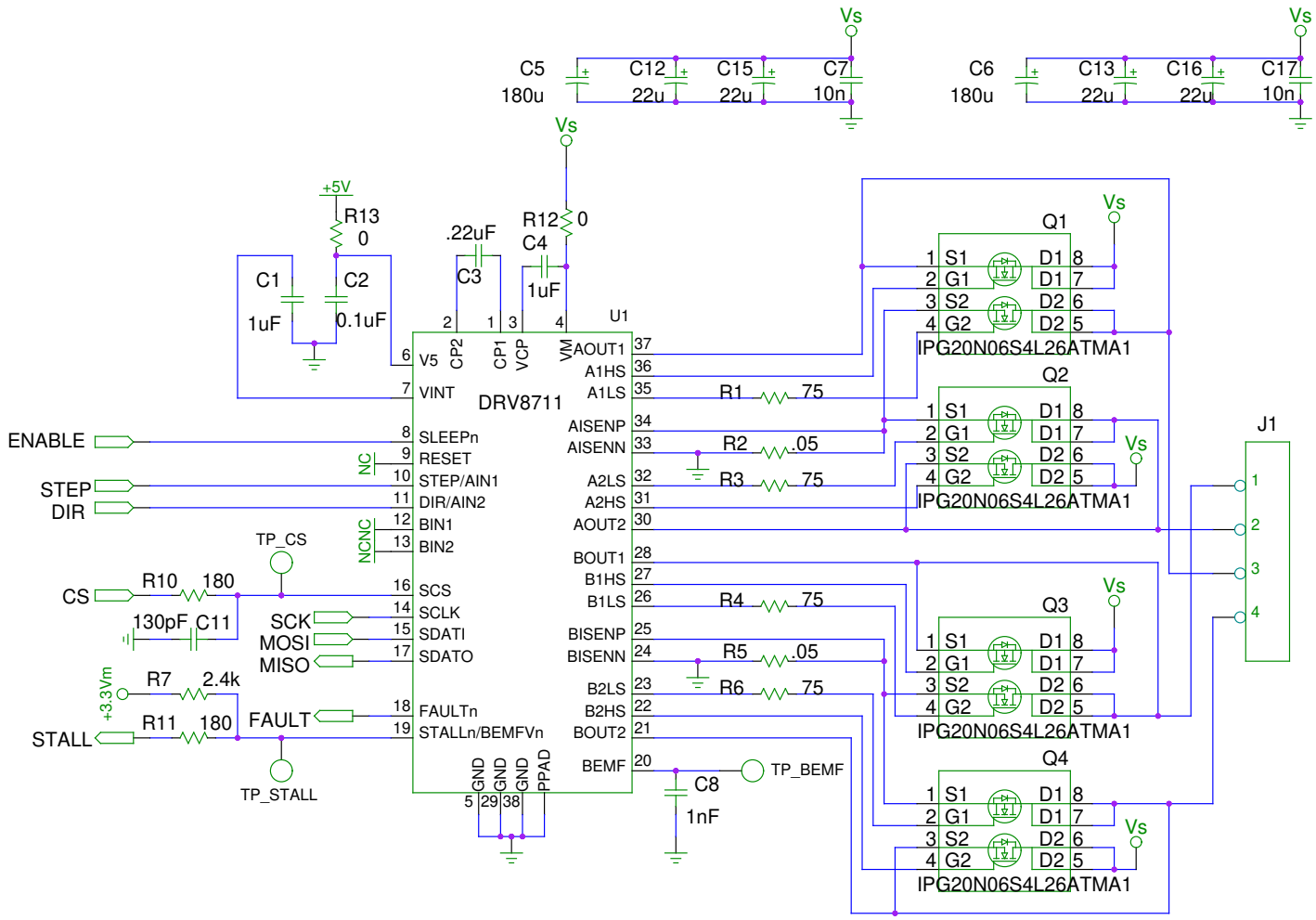

Motor Driver

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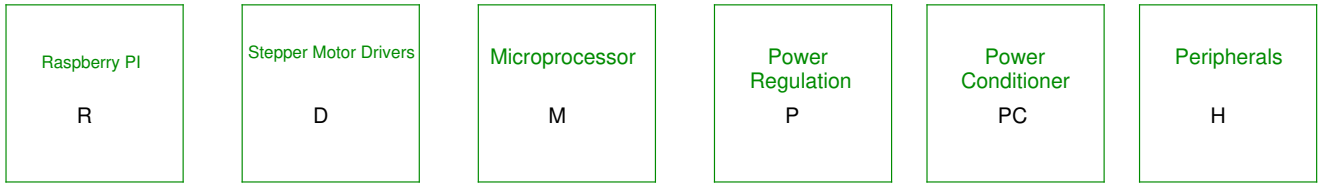

Buildbotics Controller

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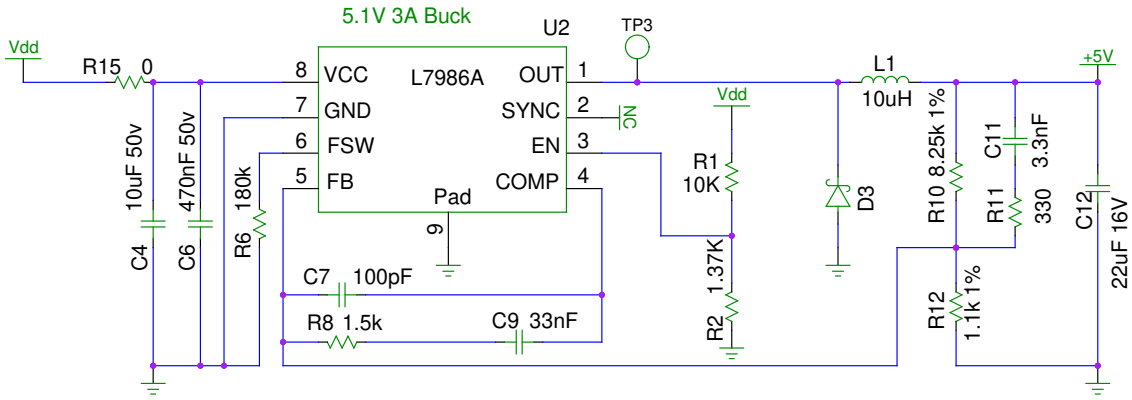

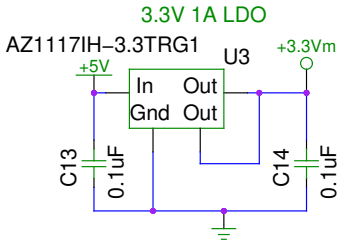

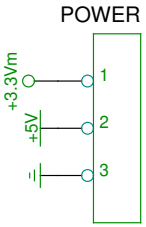

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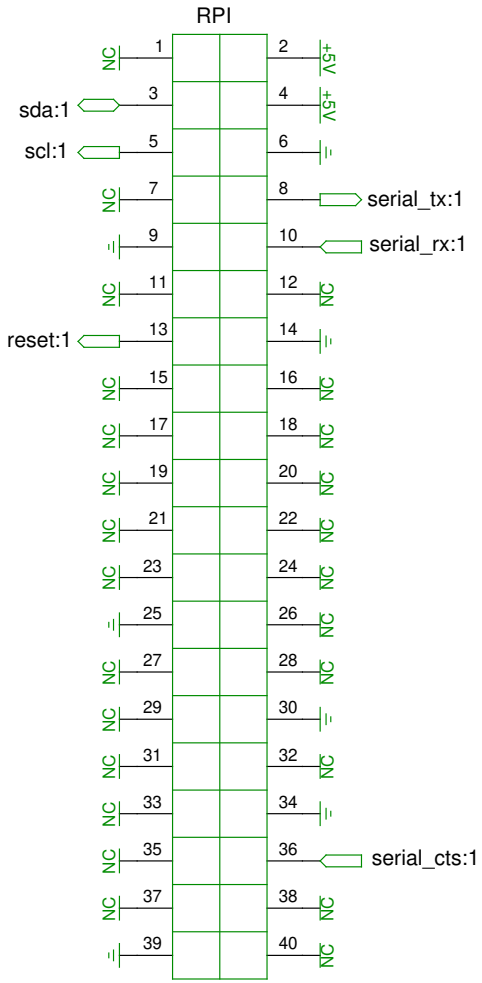

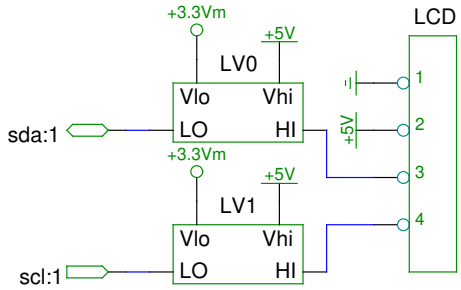

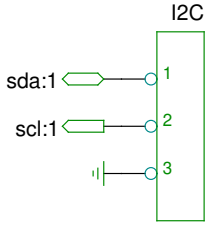

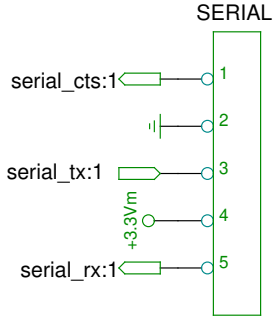

RPI Bus

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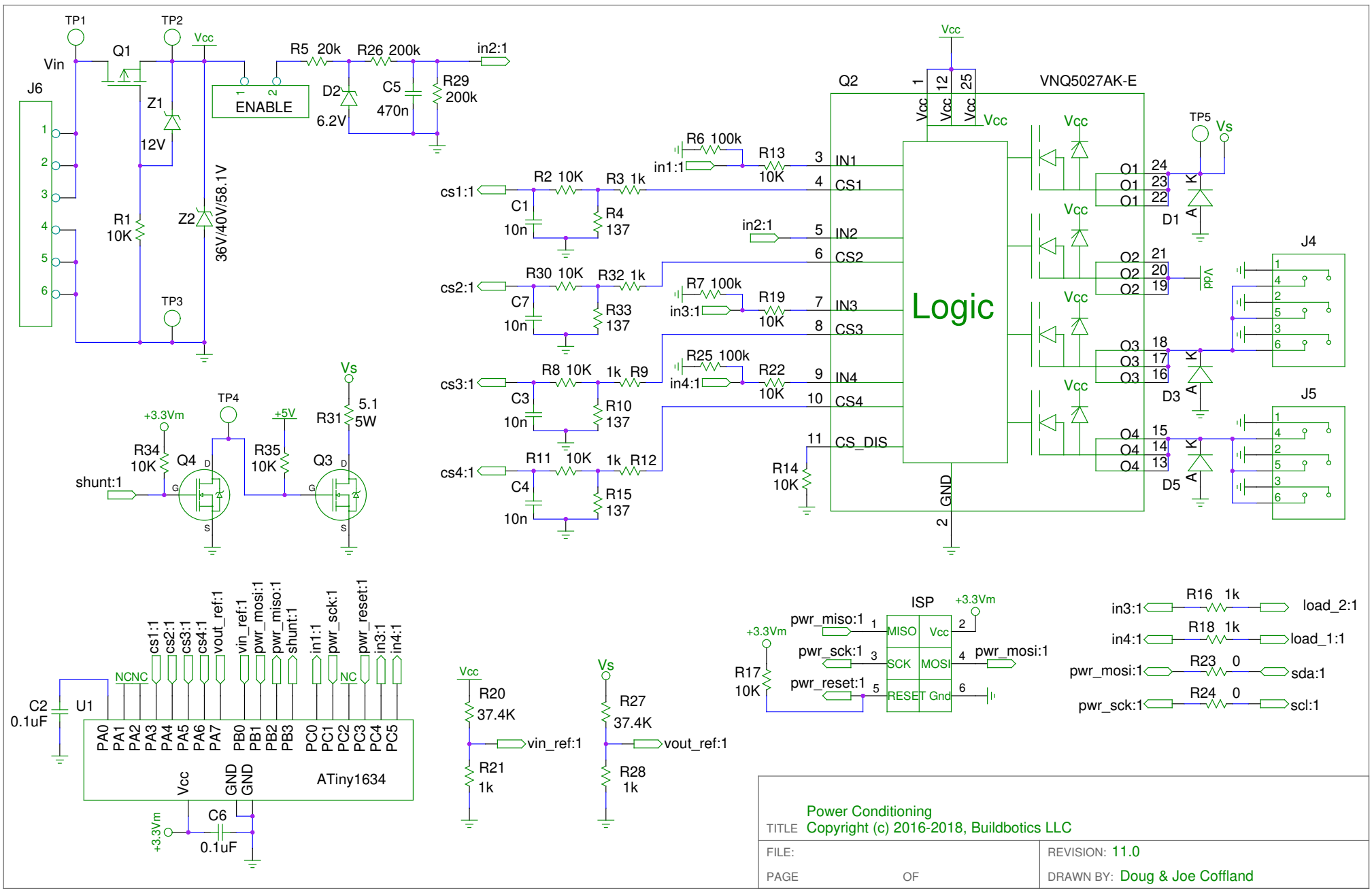

Power Conditioning

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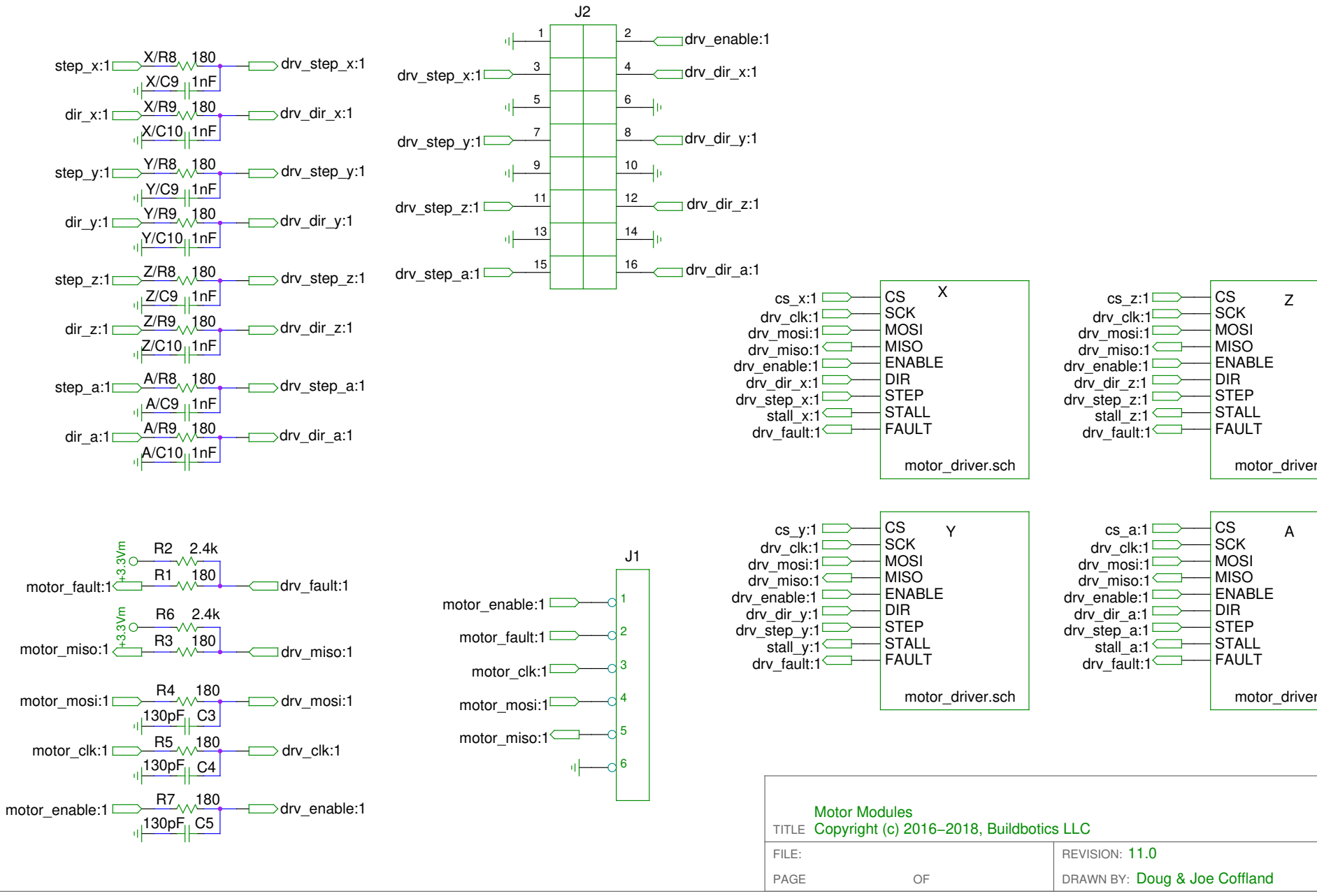
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X/C9 1nF
dir_x:1
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X/C10 1nF
step_y:1
Y/R8 180
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Y/C9 1nF
dir_y:1
Y/R9 180
drv_dir_y:1
Y/C10 1nF
step_z:1
Z/R8 180
drv_step_z:1
Z/C9 1nF
dir_z:1
Z/R9 180
drv_dir_z:1
Z/C10 1nF
step_a:1
A/R8 180
drv_step_a:1
A/C9 1nF
dir_a:1
A/R9 180
drv_dir_a:1
A/C10 1nF
J2
1
2
drv_enable:1
drv_step_x:1
3
4
drv_dir_x:1
5
6
drv_step_y:1
7
8
drv_dir_y:1
9
10
drv_step_z:1
11
12
drv_dir_z:1
13
14
drv_step_a:1
15
16
drv_dir_a:1
cs_x:1
drv_clk:1
drv_mosi:1
drv_miso:1
drv_enable:1
drv_dir_x:1
drv_step_x:1
stall_x:1
drv_fault:1
CS
SCK
MOSI
MISO
ENABLE
DIR
STEP
STALL
FAULT
X
motor_driver.sch
cs_z:1
drv_clk:1
drv_mosi:1
drv_miso:1
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drv_step_z:1
stall_z:1
drv_fault:1
CS
SCK
MOSI
MISO
ENABLE
DIR
STEP
STALL
FAULT
Z
motor_driver.sch
cs_y:1
drv_clk:1
drv_mosi:1
drv_miso:1
drv_enable:1
drv_dir_y:1
drv_step_y:1
stall_y:1
drv_fault:1
CS
SCK
MOSI
MISO
ENABLE
DIR
STEP
STALL
FAULT
Y
motor_driver.sch
cs_a:1
drv_clk:1
drv_mosi:1
drv_miso:1
drv_enable:1
drv_dir_a:1
drv_step_a:1
stall_a:1
drv_fault:1
CS
SCK
MOSI
MISO
ENABLE
DIR
STEP
STALL
FAULT
A
motor_driver.sch
+3.3Vm
R2 2.4k
motor_fault:1
R1 180
drv_fault:1
+3.3Vm
R6 2.4k
motor_miso:1
R3 180
drv_miso:1
motor_mosi:1
R4 180
drv_mosi:1
130pF C3
motor_clk:1
R5 180
drv_clk:1
130pF C4
motor_enable:1
R7 180
drv_enable:1
130pF C5
J1
motor_enable:1
1
motor_fault:1
2
motor_clk:1
3
motor_mosi:1
4
motor_miso:1
5
6
Motor Modules
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