3x3Motor

V1.0

3x3Motor
Open Source 18-36V 3x motor controller board.
Designed by: Olle Welin 2025

DMG2305UX-7
Q1

TLV75733PDBVR
Output Voltage : 3.3V

0ABA-0500-TN

051N-4BH806-S

MIMXRT1062DVJ6B

A-MicroTF-1.85A

RJ1
RJHSE5384

DP83825IRMQR

W25Q64JVZPIQ

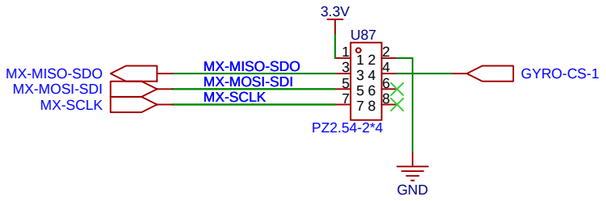
MX950T-9.5-02P-GN01-Cu-PS-A

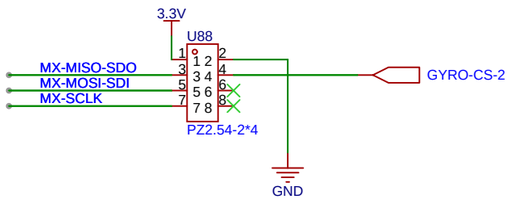
RB160VAM-60TR

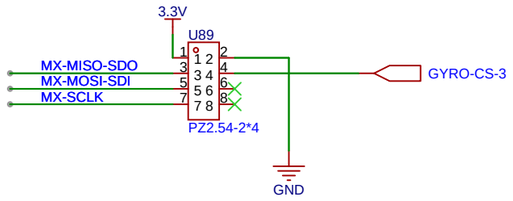
LMR51606XDBVR

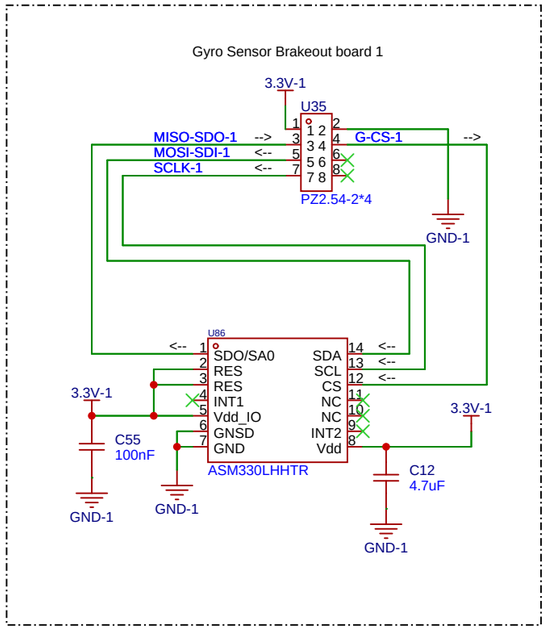
motor_drv

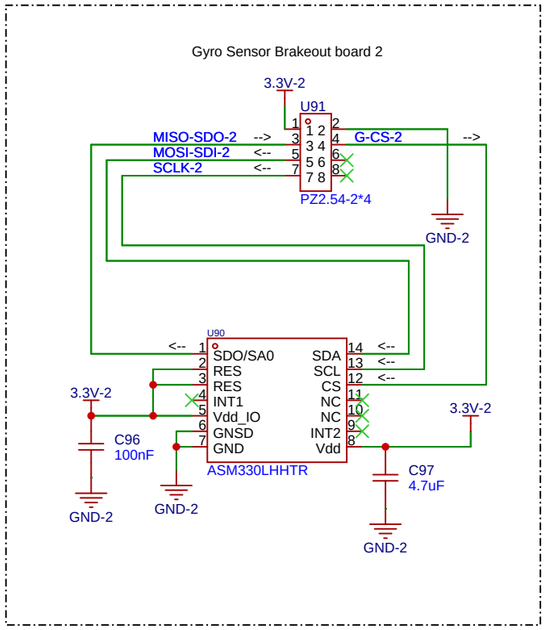
Schematic	3x_motor_driver	Create at	2025-05-27
		Update at	2025-05-28
Board	Board1	Page	P1
Drawn		3x3motors_d	
Reviewed			
	Version	Size	Page 1 Total 1
EasyEDA	V1.0	A4	EasyEDA.com

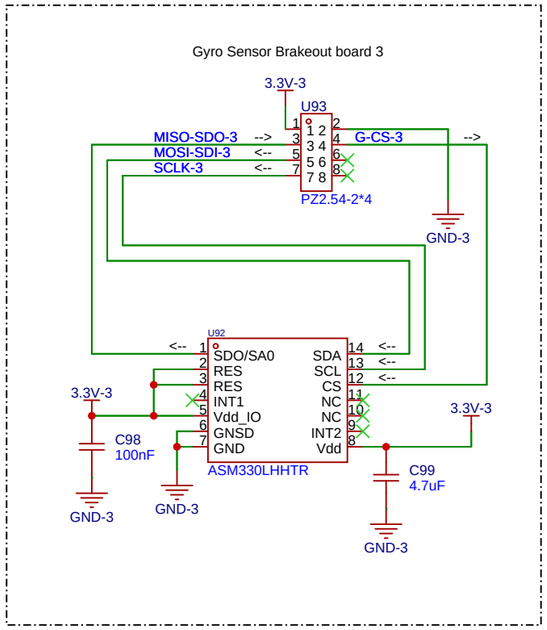

3.3V
U87
MX-MISO-SDO
MX-MOSI-SDI
MX-SCLK
GYRO-CS-1
PZ2.54-2*4
GND

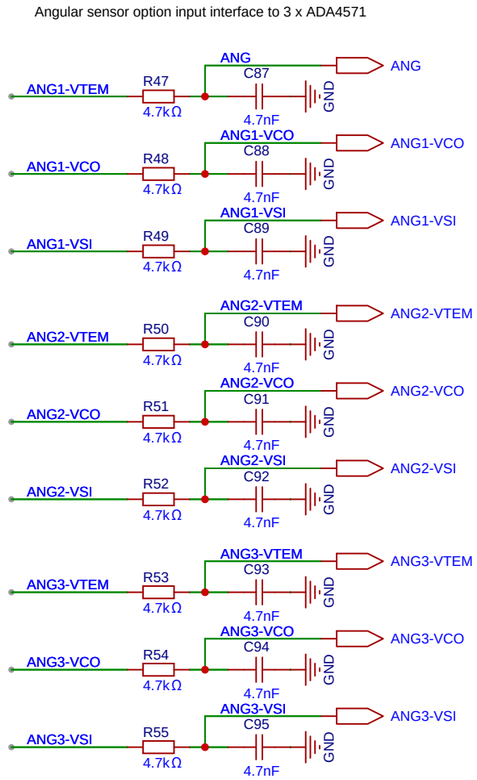

3.3V
U88
MX-MISO-SDO
MX-MOSI-SDI
MX-SCLK
GYRO-CS-2
PZ2.54-2*4
GND

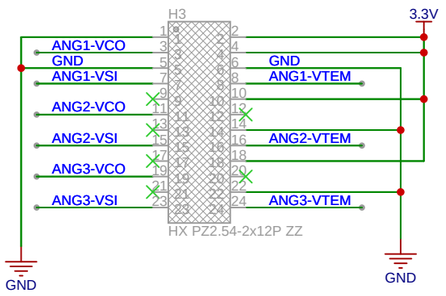

3.3V
U89
MX-MISO-SDO
MX-MOSI-SDI
MX-SCLK
GYRO-CS-3
PZ2.54-2*4
GND


Gyro Sensor Brakeout board 1
3.3V-1
U35
MISO-SDO-1
MOSI-SDI-1
SCLK-1
G-CS-1
PZ2.54-2*4
GND-1
U86
SDO/SA0
RES
INT1
Vdd_IO
GNSD
GND
SDA
SCL
CS
NC
INT2
Vdd
ASM330LHHTR
C55
100nF
C12
4.7uF


Gyro Sensor Brakeout board 2
3.3V-2
U91
MISO-SDO-2
MOSI-SDI-2
SCLK-2
G-CS-2
PZ2.54-2*4
GND-2
U90
SDO/SA0
RES
INT1
Vdd_IO
GNSD
GND
SDA
SCL
CS
NC
INT2
Vdd
ASM330LHHTR
C96
100nF
C97
4.7uF


Gyro Sensor Brakeout board 3
3.3V-3
U93
MISO-SDO-3
MOSI-SDI-3
SCLK-3
G-CS-3
PZ2.54-2*4
GND-3
U92
SDO/SA0
RES
INT1
Vdd_IO
GNSD
GND
SDA
SCL
CS
NC
INT2
Vdd
ASM330LHHTR
C98
100nF
C99
4.7uF


Angular sensor option input interface to 3 x ADA4571
ANG1-VTEM
R47
4.7kΩ
C87
4.7nF
ANG
ANG1-VCO
R48
C88
ANG1-VSI
R49
C89
ANG2-VTEM
R50
C90
ANG2-VCO
R51
C91
ANG2-VSI
R52
C92
ANG3-VTEM
R53
C93
ANG3-VCO
R54
C94
ANG3-VSI
R55
C95
GND


H3
3.3V
ANG1-VCO
GND
ANG1-VSI
ANG2-VCO
ANG2-VSI
ANG3-VCO
ANG3-VSI
ANG1-VTEM
ANG2-VTEM
ANG3-VTEM
HX PZ2.54-2x12P ZZ
GND

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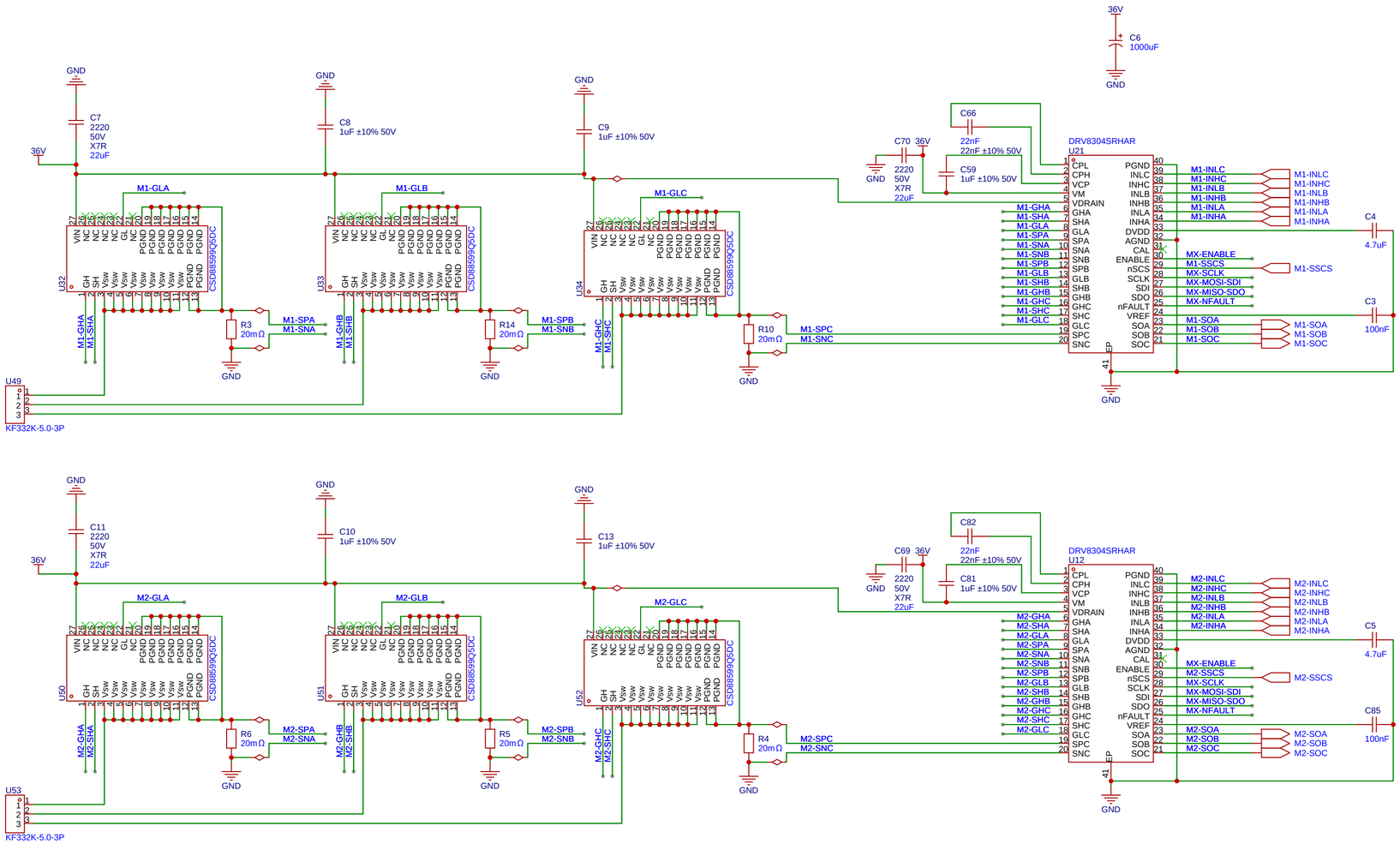
36V
C6
1000uF
GND
C7
2220
50V
X7R
22uF
C8
1uF ±10% 50V
C9
1uF ±10% 50V
M1-GLA
M1-GLB
M1-GLC
U82
U83
U84
CSD88599Q5DC
R3
20mΩ
R14
20mΩ
R10
20mΩ
M1-SPA
M1-SNA
M1-SPB
M1-SNB
M1-SPC
M1-SNC
M1-GHA
M1-SHA
M1-GHB
M1-SHB
M1-GHC
M1-SHC
U49
KF332K-5.0-3P
C66
22nF
22nF ±10% 50V
C70
2220
50V
X7R
22uF
C59
1uF ±10% 50V
DRV8304SRHAR
U21
M1-INLC
M1-INHC
M1-INLB
M1-INHB
M1-INLA
M1-INHA
C4
4.7uF
C3
100nF
MX-ENABLE
M1-SSCS
MX-SCLK
MX-MOSI-SDI
MX-MISO-SDO
MX-NFAULT
M1-SOA
M1-SOB
M1-SOC
C11
2220
50V
X7R
22uF
C10
1uF ±10% 50V
C13
1uF ±10% 50V
M2-GLA
M2-GLB
M2-GLC
U50
U51
U52
R6
20mΩ
R5
20mΩ
R4
20mΩ
M2-SPA
M2-SNA
M2-SPB
M2-SNB
M2-SPC
M2-SNC
M2-GHA
M2-SHA
M2-GHB
M2-SHB
M2-GHC
M2-SHC
U53
KF332K-5.0-3P
C82
22nF
22nF ±10% 50V
C69
2220
50V
X7R
22uF
C81
1uF ±10% 50V
DRV8304SRHAR
U12
M2-INLC
M2-INHC
M2-INLB
M2-INHB
M2-INLA
M2-INHA
C5
4.7uF
C85
100nF
MX-ENABLE
M2-SSCS
MX-SCLK
MX-MOSI-SDI
MX-MISO-SDO
MX-NFAULT
M2-SOA
M2-SOB
M2-SOC
C18
2220
50V
X7R
22uF
C15
1uF ±10% 50V
C14
1uF ±10% 50V
M3-GLA
M3-GLB
M3-GLC
U54
U1
U56
CSD88599Q5DC
R15
20mΩ
R20
20mΩ
R7
20mΩ
M3-SPA
M3-SNA
M3-SPB
M3-SNB
M3-SPC
M3-SNC
M3-GHA
M3-SHA
M3-GHB
M3-SHB
M3-GHC
M3-SHC
U57
KF332K-5.0-3P
C84
22nF
22nF ±10% 50V
C68
2220
50V
X7R
22uF
C83
1uF ±10% 50V
DRV8304SRHAR
U20
M3-INLC
M3-INHC
M3-INLB
M3-INHB
M3-INLA
M3-INHA
C101
4.7uF
C100
100nF
MX-ENABLE
M3-SSCS
MX-SCLK
MX-MOSI-SDI
MX-MISO-SDO
MX-NFAULT
M3-SOA
M3-SOB
M3-SOC

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