

APPENDIX A: Connections

SMT32 evaluation:

NUCLEO-L010RB

TMC-6300-BOB BREAKOUT BOARD

RACESTAR 0703 MOTOR

1S (3.7V) BATTERY

NC – NOT CONNECTED

UH	PA7
UL	PB6
VH	PC7
VL	PB10
WH	PB4
WL	PB3
U	MOTOR PIN1
H	MOTOR PIN2
L	MOTOR PIN3
GND	BAT-
GND	BAT-
GND	BAT-
GND	BAT-
+VBAT	BAT+
VIO/STDBY	3.3V
DIAG	NC

RP2040 EVALUATION:

RP2040 BREAKOUT BOARD

TMC-6300-BOB BREAKOUT BOARD

RACESTAR 0703 MOTOR

1S (3.7V) BATTERY

MPU6050 BREAKOUT BOARD

NC – NOT CONNECTED

UH	GP10
UL	GP11
VH	GP12
VL	GP13
WH	GP14
WL	GP15
U	MOTOR PIN1
H	MOTOR PIN2
L	MOTOR PIN3
GND	BAT-
GND	BAT-
GND	BAT-
GND	BAT-
+VBAT	BAT+
VIO/STDBY	3.3V
DIAG	NC
VCC	3.3V
GND	GND
SCL	GP5
SDA	GP4