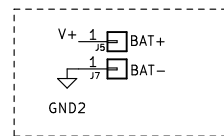


[illegible]

A circuit diagram showing a capacitor labeled C3 connected between the NRST pin and GND. The NRST pin is represented by a vertical line with a horizontal bar at the top. The capacitor is represented by two parallel horizontal lines. The GND symbol is a triangle with a horizontal line at its base. The entire diagram is enclosed in a dashed rectangular box.



Motor1_OUT1 $\frac{1}{j_{k1}}$ M11

Motor1_OUT2 $\frac{1}{j_{l1}}$ M12

Motor2_OUT1 $\frac{1}{j_{k2}}$ M21

Motor2_OUT2 $\frac{1}{j_{l2}}$ M22

Motor3_OUT1 $\frac{1}{j_{k3}}$ M31

Motor3_OUT2 $\frac{1}{j_{l3}}$ M33

The image displays three circuit diagrams for MAX14930 comparators, labeled U7, U6, and U8. Each diagram shows the power supply connections and the specific input/output pins for a different motor or servo.

U7 MAX14930: This comparator is connected to a +3.3V supply (pin 1) and a +5V supply (pin 16). It has two inputs: Servo_PWM (pin 3) and Motor1_PWM (pin 5). It has two outputs: Servo_PWM_Isolated (pin 14) and Motor1_PWM_Isolated (pin 12). The inputs are also connected to GND (pin 2) and the outputs to GND2 (pin 9).

U6 MAX14930: This comparator is connected to a +3.3V supply (pin 1) and a +5V supply (pin 16). It has four inputs: Motor2_PWM (pin 3), Motor2_DIR (pin 4), Motor3_PWM (pin 5), and Motor3_DIR (pin 6). It has four outputs: Motor2_PWM_Isolated (pin 14), Motor2_DIR_Isolated (pin 13), Motor3_PWM_Isolated (pin 12), and Motor3_DIR_Isolated (pin 11). The inputs are also connected to GND (pin 2) and the outputs to GND2 (pin 9).

U8 MAX14930: This comparator is connected to a +3.3V supply (pin 1) and a +5V supply (pin 8). It has two inputs: Thrower_PWM (pin 2) and Thrower_PWM_Isolated (pin 7). The inputs are also connected to GND (pin 4) and the outputs to GND2 (pin 5).

Three wiring diagrams for motor encoders are shown, each enclosed in a dashed box. Each diagram illustrates a 4-pin encoder connected to a 3.3V supply and ground. The connections are as follows:

- Diagram 1 (Left):** Motor1_ENC is connected to pin 4, Motor1_ENCA to pin 3, GND to pin 1, and +3.3V to pin 2. The encoder is labeled J8.
- Diagram 2 (Middle):** Motor3_ENC is connected to pin 4, Motor3_ENCA to pin 3, GND to pin 1, and +3.3V to pin 2. The encoder is labeled J9.
- Diagram 3 (Right):** Motor2_ENC is connected to pin 4, Motor2_ENCA to pin 3, GND to pin 1, and +3.3V to pin 2. The encoder is labeled J10.

Schematic diagram of the thrower control circuit. It shows a 5V supply connected to the THWR+ pin of a 14-pin connector. The THWR- pin is connected to ground (GND2). A 14-pin connector labeled J6 is shown with pins 1, 2, 3, and 4. Pin 1 is labeled 'Thrower' and pin 2 is labeled 'Thrower_PWM_Isolated'. Pins 3 and 4 are connected to ground.

Diagram showing the wiring for the servo motor (J3):

- Pin 1 is connected to +5V.
- Pin 2 is connected to Servo_PWM_Isolated.
- Pin 3 is connected to GND2.

U10
DRV8243

1 nFAULT MODE 14
2 IPROPI ITRIP 13
3 nSLEEP SR 12
4 VM DIAG 11
5 OUT2 PH/IN2 10 Motor1_DIR_Isolated
6 GND EN/IN1 9 Motor1_PWM_Isolated
7 OUT1 DRVOFF 8

R11 3k
nSLEEP_Isolated
VM
C20 10uF
C29 10uF
C32 10uF
C35 10uF
C38 Motor1_OUT2
Motor1_OUT1
GND2

U9
DRV8243

1 nFAULT MODE 14
2 IPROPI ITRIP 13
3 nSLEEP SR 12
4 VM DIAG 11
5 OUT2 PH/IN2 10 Motor2_DIR_Isolated
6 GND EN/IN1 9 Motor2_PWM_Isolated
7 OUT1 DRVOFF 8

R10 3k
nSLEEP_Isolated
VM
C17 10uF
C22 10uF
C31 10uF
C34 10uF
C37 Motor2_OUT2
Motor2_OUT1
GND2

U11
DRV8243

1 nFAULT MODE 14
2 IPROPI ITRIP 13
3 nSLEEP SR 12
4 VM DIAG 11
5 OUT2 PH/IN2 10 Motor3_DIR_Isolated
6 GND EN/IN1 9 Motor3_PWM_Isolated
7 OUT1 DRVOFF 8

R12 3k
nSLEEP_Isolated
VM
C14 10uF
C21 10uF
C30 10uF
C33 10uF
C36 Motor3_OUT2
Motor3_OUT1
GND2