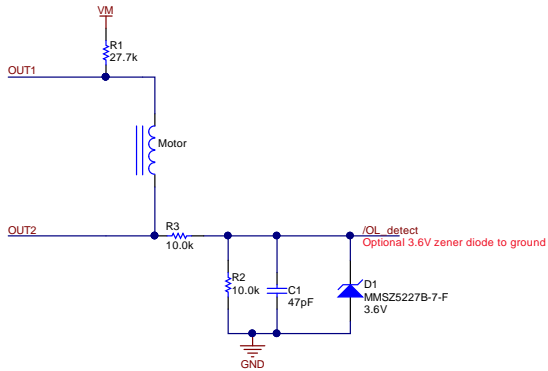


1

2

3

4



Open Load detection circuit

Method 1

Assumptions:

The detection circuit will be active when the motor is not operating.
This circuit is used to detect an open load via an interrupt.

/OL_detect can be connected to a GPIO interrupt.

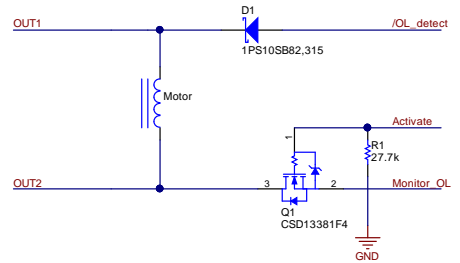
/OL_detect will be a logic high if the motor is connected.

/OL_detect will be a logic low if the motor is not connected.

At 6V, /OL_detect will be 2.5V with motor not running

At 8V, /OL_detect will be 3.3V with motor not running

Current could be reduced by adjusting resistors.



Open Load detection circuit

Method 2 (wake and poll) -- Could reduce system power depending on time between polling

Assumptions:

The detection circuit will be used when the motor is not active.

The mcu will awaken via an interrupt and poll the OL_detect signal.

/OL_detect can be connected to a GPIO with internal pullup, and monitored.

/OL_detect will be a logic low if the motor is connected.

/OL_detect will be a logic high if the motor is not connected.

Activate is set to a logic high output to enable the FET, and should have an external pulldown for powerup, when the GPIO is HIZ.

Monitor_OL is set to a logic low output to pull /OL_detect low if the motor is

A

B

C