

Task 1: High Side vs. Low Side Switching

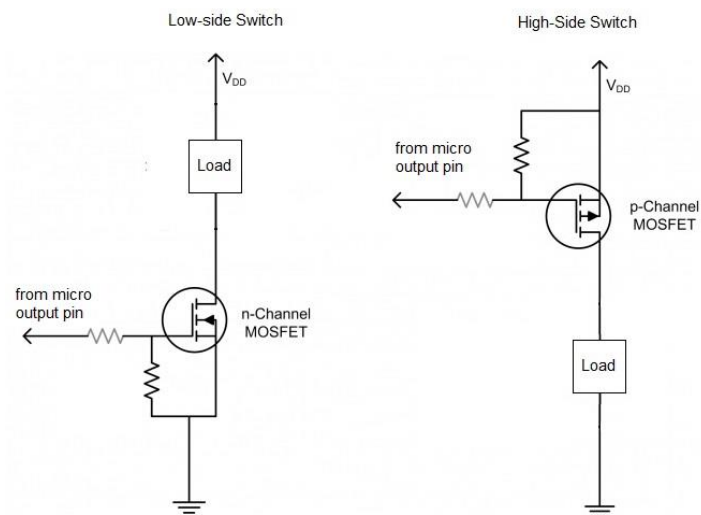
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Low-side refers to current flowing from the load to ground through the MOSFET. High-side refers to current flowing from the supply to the load through the MOSFET then to the ground.

Low-side switching means that the two subcircuits will have different ground levels since the switching element will have a (small) non-zero voltage drop.

High-side switching will have a lower maximum current limit since P-type (high-side) switching elements usually have a higher on resistance than N-type (low-side) switching elements.

In cases of providing power to grounded devices, using high-side switching is the most suitable option. Low-side switching is often used in N-channel devices and is easier to control the switch.



Generally, a low-side switch is an effective and simple way to turn devices on and off. In addition, Low side switches are perfect for circuits in which loads are placed at multiple power supply voltages. For larger circuits, high-side switching is much preferred to be used for providing power.