# Flashlight Overview and Natural Language Sample Code

VEX Flashlight

The VEX Flashlight is an array of 4 LEDs that helps your robot light the way. The VEX Flashlight can plug into any motor port, but not all of them allow for brightness control. To have brightness control over the flashlight, it needs to be either plugged into port 1 or port 10, or, you need to use the "Motor Controller 29" in ports 2 through 9. Without Motor Controller 29, you can still use the Flashlight in ports 2 through 9, but can only turn it either all the way on or completely off.
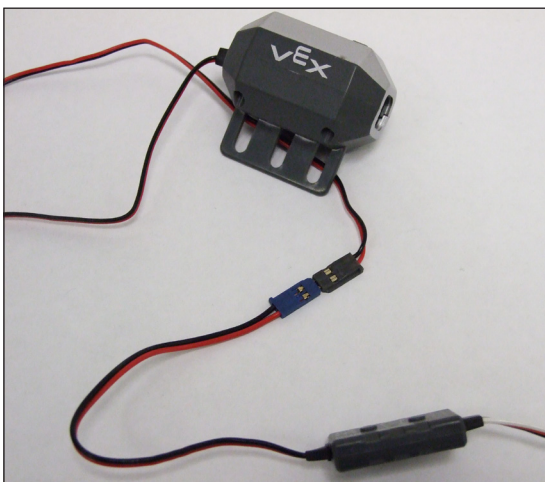

Flashlight with Motor Controller 29

When plugged in to ports 1 or 10, the range of brightness values starts at 0 (off), and goes to -127 (fully on).
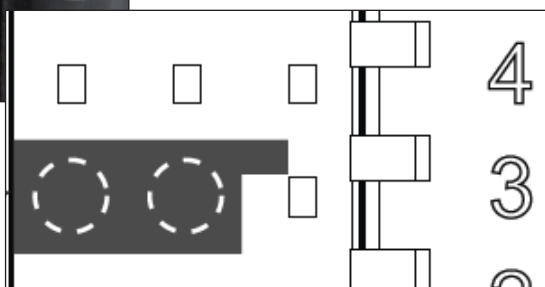
When plugging a VEX Flashlight into ports 2 through 9, it is important to insert the wires into the two slots closest to the numbered flat side of the motor ports, not the side with the tab slots (see pictures at bottom of page).

Also, when connecting the Flashlight to a Motor Controller 29, be sure to make that the wires align properly. Red should connect to red, and black to black, as shown in the picture to the left.
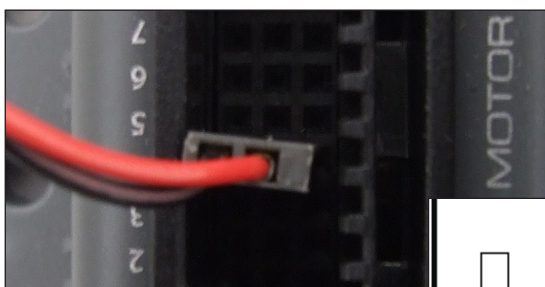
Correct wiring for a VEX Flashlight to a motor port
When wiring a VEX Flashlight, make sure that it is plugged into the "flat" edge, not the "slotted" edge

Flashlight Natural Language Sample Code

Flashlight On and Off

This code turns the flashlight on at half brightness for 2 seconds, then off for 2 seconds, and then at full brightness for 2 seconds. Remeber that you need to use ports 1 or 10 for brightness control.

```
task main ()
{
 turnFlashlightOn(port1, -63); //Flashlight on, half brightness
 wait(2);                      //Wait for 2 seconds

 turnFlashlightOff(port1);     //Turn flashlight off
 wait(2);                      //Wait for 2 seconds

 turnFlashlightOn(port1, -127);//Flashlight on, full brightness
 wait(2);                      //Wait for 2 seconds
}
```