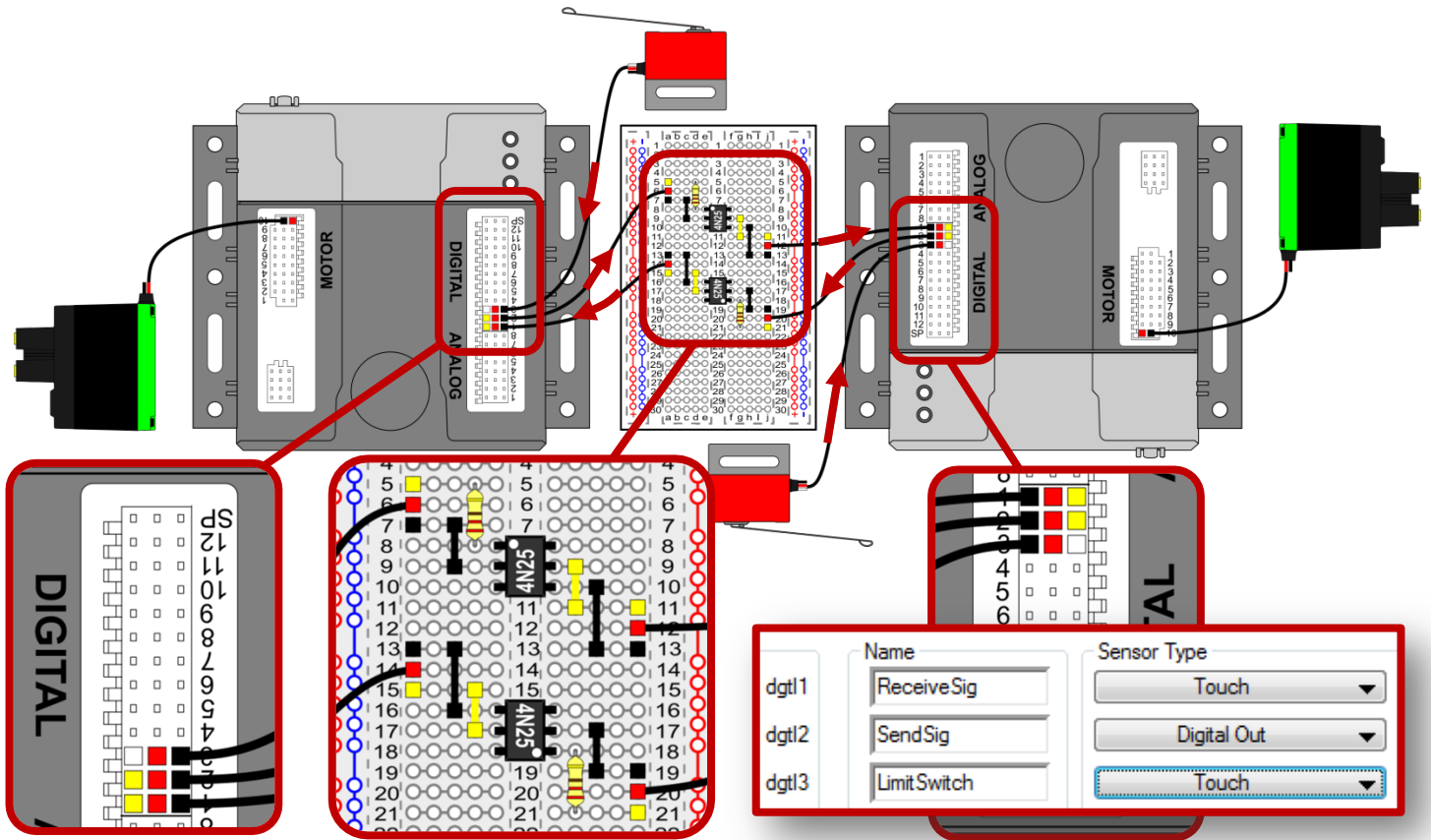# VEX to VEX Handshaking Layout

INPUT

An input can be received from the optical isolator on the Cortex as a TOUCH on any input from dgtl1 – dgtl12

An Until Touch can easily be used to receive a signal

HANDSHAKING

The optical isolator is used to safely send a signal from like or unlike devices.

The 4N25 contains a gallium arsenide infrared emitting diode optically coupled to a monolithic silicon phototransistor detector.

Use a 220Ω resistor and a jumper wire to connect the PWM cable from a DIGITAL OUTPUT on the VEX Cortex to pin 1 and 2 to activate the LED. Use a 2 short jumper wires to connect the phototransistor to the PWM cable to an INPUT on the VEX Cortex.

Note: Pin 1 is identified on the optical isolator
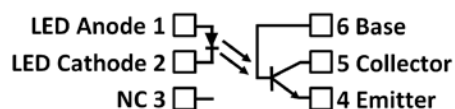
OUTPUT

Low voltage outputs can be sent from the VEX Cortex by assigning one of the input ports dgtl1 – dgtl12 as a digital output. The digital outputs can be used to SEND signals from the VEX CORTEX

Note: DO NOT use a motor port to send the output from the VEX Cortex.

To send a digital signal you can use the following command

Turn on Signal:
SensorValue[SendSig]=1;

Turn off Signal:
SensorValue[SendSig]=0;

Note: SendSig is an example variable name given to a digital output port