VEX Component Cheat Sheet

Analog Components

Component	Variable Name	Ports	Values	Type of Sensor	Comments
Potentiometer	potentiometer	Analog	0 – 4095 (10 – 4080)	Potentiometer	Test the limits of the potentiometer and stay about 20 units away from the extremes
Line Follower	lineFollower	Analog	0 - 4095	Line Follower	
Light Sensor	lightSensor	Analog	0 - 4095	Light Sensor	

Digital

Green LED	green	Digital	0,1 (1 is on)	VEX LED	
Red LED	red	Digital	0,1 (1 is on)	VEX LED	
Limit Switch	limitSwitch	Digital	0,1 (1 is pressed)	Touch	
Bump Switch	bumpSwitch	Digital	0,1 (1 is pressed)	Touch	
Quadrature Encoder	quad	Digital – 2 adjacent ports	-32000 to 32000 roughly	Quadrature Encoder	if you spin CW and the numbers count in the opposite direction you want, reverse the plugs in the cortex
Sonar (input & output)	sonar	Digital - 2 adjacent ports - input goes first	-1 means "nothing in range"	Sonar	3cm to 3m (mm,cm,in,raw)
Any digital Sensor	5V	Digital	0,1	Digital in	
Solenoid Valve	Any 5V	Digital	0,1	Digital out	

Motor Ports

Motor 269	rightMotor or leftMotor	1 and 10	-127 to 127 Positive is forward	VEX 269 Motor	In ports 1 and 10, the Cortex has a built-in speed controller
With speed controller 29		2-9			
Motor 393	rightMotor or leftMotor	1 and 10	-127 to 127 Positive is forward	VEX 393 Motor	Higher torque - but can be converted to high speed
With speed controller 29		2-9			
Servo	servoMotor	2-9 motor ports	-127 to 127 120 deg. of movement	3-wire Servo	Can be slowed with a "for Loop"
Flashlight	flashlight	1 and 10 Check polarity	0 – 127	VEX Flashlight	
With motor controller 29		2-9			

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