Wheel.lvlib:Wheel_Set.vi

Help by FRC Team 836 - The RoboBees

This VI will set the desired Revolutions Per Minute (RPM) for a wheel.
DeviceStatus

status

status is TRUE (X) if an error occurred or FALSE (checkmark) to indicate a warning or that no error occurred.

Right-click the error in control on the front panel and select Explain Error or Explain Warning from the shortcut menu for more information about the error.

code

code is the error or warning code.

Right-click the error in control on the front panel and select Explain Error or Explain Warning from the shortcut menu for more information about the error.

source

source describes the origin of the error or warning.

Right-click the error in control on the front panel and select Explain Error or Explain Warning from the shortcut menu for more information about the error.

Type

PWM

PWM Channel
**DeadBand**

**Name**

- `maxPositivePwm`
- `minPositivePwm`
- `centerPwm`
- `maxNegativePwm`
- `minNegativePwm`
- `angularRange`

**CAN**

**Device Number**

**Control Mode**

**Semaphore**

*semaphore* is a reference to an existing or newly created semaphore.

**Max Vout**

**TalonSRX Control Mode**
**Control Mode** specifies how the Talon SRX will control the motor. Percent VBus is the standard open-loop mode that is also accessible via the PWM interface on the Talon SRX.

**Invert**

**Control Gains**

**Period (ms)**

**TBH Gain**

**Priority**

**PID gains**

**PID gains** specifies the proportional gain, integral time, and derivative time parameters of the controller.

**proportional gain (Kc)**

**Integral time (Ti, min)**

**Derivative time (Td, min)**
Stable (sec)

Range

Shooter Wheel DevRef Out

Shooter Config reference

Shooter Data

MotorControlDevRef

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Type

PWM

PWM Channel

DeadBand

Name

maxPositivePwm

minPositivePwm

centerPwm

maxNegativePwm

minNegativePwm

angularRange
CAN

**Device Number**

**Control Mode**

**Semaphore**

Semaphore is a reference to an existing or newly created semaphore.

**Max Vout**

**TalonSRX Control Mode**

Control Mode specifies how the Talon SRX will control the motor. Percent VBus is the standard open-loop mode that is also accessible via the PWM interface on the Talon SRX.

**Invert**

**Set Point**

**Actual**

**Error Out**

error in can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

Right-click the error in control on the front panel and select **Explain**
**Error** or **Explain Warning** from the shortcut menu for more information about the error.

**status**

**status** is TRUE (X) if an error occurred or FALSE (checkmark) to indicate a warning or that no error occurred.

Right-click the **error in** control on the front panel and select **Explain Error** or **Explain Warning** from the shortcut menu for more information about the error.

**code**

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Right-click the **error in** control on the front panel and select **Explain Error** or **Explain Warning** from the shortcut menu for more information about the error.

**source**

**source** describes the origin of the error or warning.

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This VI will set the desired Revolutions Per Minute (RPM) for a wheel.

Wheel.lvlib:Config.ctl

C:\Program Files (x86)\National Instruments\LabVIEW 2015\user.lib\836-Library\Motion Control\Shooter_Wheel\Config.ctl

WPI_MotorControlDeviceRef.ctl

C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\WPI\MotorControl\WPI_MotorControlDeviceRef.ctl

WPI_CANJaguar_ControlMode.ctl

C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\WPI\CAN\Jaguar\SubVIs\WPI_CANJaguar_ControlMode.ctl

Wheel.lvlib:Data.ctl

C:\Program Files (x86)\National Instruments\LabVIEW 2015\user.lib\836-Library\Motion Control\Shooter_Wheel\Data.ctl
WPI_CANTalonSRX_APIControlMode.ctl
C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\WPI\CAN\TalonSRX\WPI_CANTalonSRX_APIControlMode.ctl

FPGA_DIOPWMChannel.ctl
C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\SystemInterfaces\DIO\FPGA_DIOPWMChannel.ctl

WPI_PWMDeadband.ctl
C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\WPI\PWM\WPI_PWMDeadband.ctl

Wheel.lvlib:WheelControl.ctl
C:\Program Files (x86)\National Instruments\LabVIEW 2015\user.lib\836-Library\Motion Control\Shooter_Wheel\WheelControl.ctl

WPI_MotorControlType.ctl
C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\WPI\MotorControl\WPI_MotorControlType.ctl

Wheel.lvlib:Wheel_GetSet.vi
C:\Program Files (x86)\National Instruments\LabVIEW 2015\user.lib\836-Library\Motion Control\Shooter_Wheel\Wheel_GetSet.vi

Semaphore RefNum
"Wheel.lvlib:Wheel_Set.vi History"

Current Revision: 85

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**Position in Hierarchy**

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**Iconified Cluster Constants**