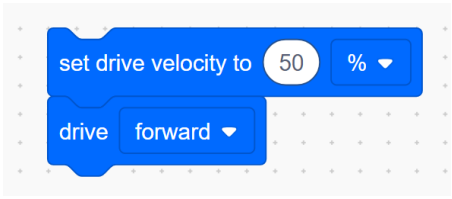
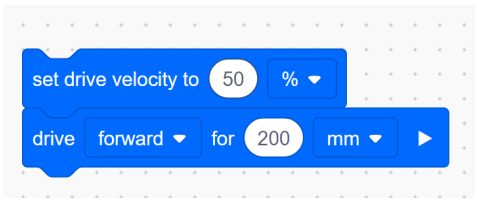
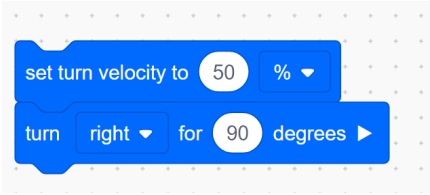
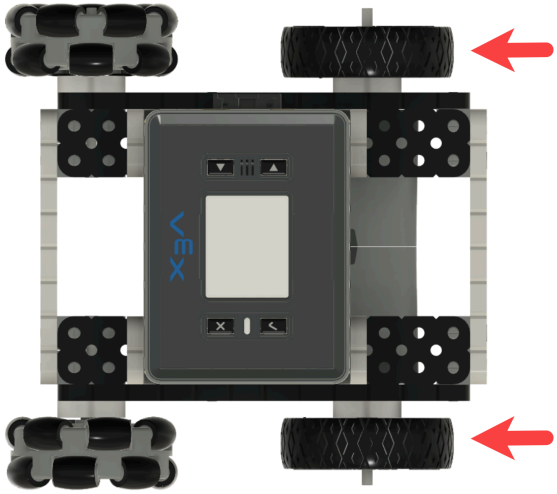
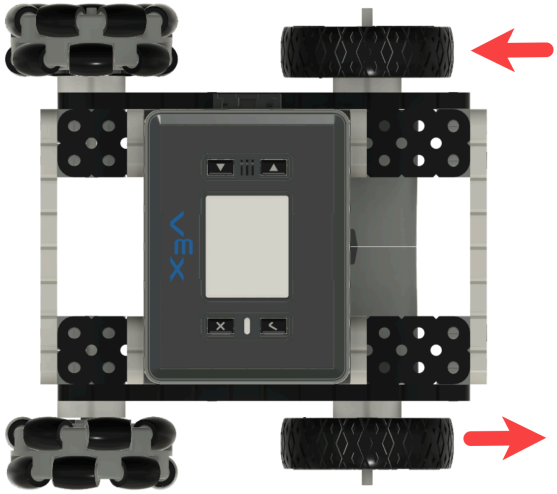
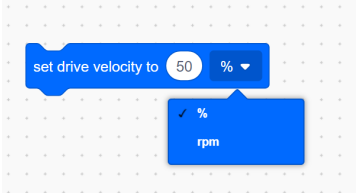
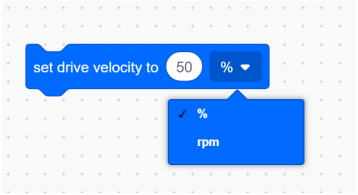
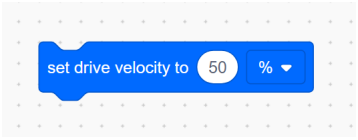
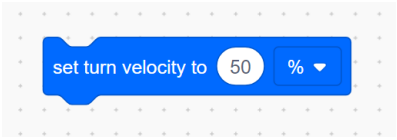
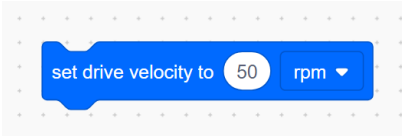
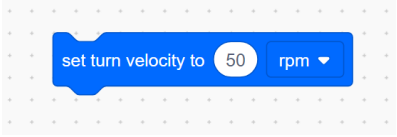
Setting Drive Velocity and Turn Velocity in VEXcode IQ

In physics, velocity and turn velocity, which is also known as angular of velocity, are vector quantities of motion. They both have a magnitude and a direction. However, in VEXcode these are conceptual ideas which are used to control the behavior of your robot. The [set drive velocity] sets the rate your robot will move in a straight line and the [set turn velocity] sets the rate your robot rotates for a turn.

Using the [set drive velocity] and the [set turn velocity] blocks can significantly improve the accuracy of your robot's autonomous path by fine tuning its rates of travel.

	The [set drive velocity] and the [set turn velocity] are added to the toolbox when a drivetrain is configured in your project.
	Or when an example project is opened which has a drivetrain configured in it.
 	The [set drive velocity] will only set the speed of the drivetrain but will not cause the drivetrain to move. A [drive block] is still required. Once the [set drive velocity] block is placed in a project, the drive velocity will stay at that value unless another [set drive velocity] block is inserted into the project flow
	The [set turn velocity] will only set the speed the drivetrain turns but will not cause the drivetrain to move. A [turn] block is still required. Once the [set turn velocity] block is placed in a project, the turn velocity will stay at that value unless another [set turn velocity] block

	is inserted into the project flow.
	The [set drive velocity] is setting the rate at which the drive motors will spin in such a way that the drive wheels move in the same direction at the same rate. This causes your robot to move in a straight line.
	The [set turn velocity] is setting the rate at which the drive motors will spin in such a way that the drive wheels move in the opposite direction at the same rate. This causes your robot to rotate for a turn.
	The units for both the [set drive velocity] and the [set turn velocity] can be changed to either percent or rpm (revolutions per minute).

	
 	When the units are set to percentage, the VEX IQ Brain sends that percentage of output power to the drive motors in order to have your robot perform the desired behavior. .
 	When the units are set to rpm, the drive motors' internal sensors send feedback to the VEX IQ Brain so the brain will send the right amount of output power to set each of the motors to spin at the rpm value in order to have your robot perform the desired behavior.