

Polaris RZR remote control with Fort Robotics Safe Remote Control



Overview

The Fort Robotics Safe Remote Control is used as a remote emergency stop and remote control. To change the transmitter/receiver pairing and wireless channel, contact Fort Robotics for their proprietary documentation.

Emergency Stop

The emergency stop is the large red button on the wireless remote. Press for an emergency stop, and twist to release for normal operation.

The emergency stop electrically removes power to drive-by-wire throttle to prevent propulsion.

The emergency stop can be configured to apply a constant brake value. Use the DbwConfig program to set the "ExtBrakeEnable" parameter to true and the "ExtBrakeValue" parameter to the desired brake value.

Remote Control

The remote control can be used to control the drive-by-wire systems remotely (brake/throttle/steer/shift) and drive the vehicle.

Use the DbwConfig program to set the scale factors for brake percentage, throttle percentage, and steering wheel angle. The defaults are 50% for brake/throttle, and ± 360 degrees for steering wheel angle.

To engage remote control, press the "1" button. The screen will prompt for this button press. This is necessary if the remote is power cycled or the e-stop button is pressed.

Move the left joystick left/right to command steering wheel angle. Move the right joystick up to command throttle percentage, and down to command brake percentage. Throttle and brake can also be commanded with the left and right joysticks on the back of the remote. To shift, hold down the "up" arrow button and press 1 for "drive", 2 for "reverse", 3 for "park", 4 for "neutral".

If there is a driver override or system fault, the remote will vibrate for a few seconds. This means the driver took control of one or more of brake/throttle/steering and the remote is no-longer in control of that by-wire system. Overrides are cleared when remote control is engaged (by pressing the "1" button earlier). Press the "pause" button twice to disengage and re-engage remote control.

