Remote Control Guide

The R/C Transmitter is used to operate and maneuver the R/C Ranger Bot. The analog joysticks of the transmitter can be used to control the direction of each motor, both DC motors and both servo motors. Use the following guide to properly link and operate the transmitter for the R/C Ranger Bot.

Linking the R/C Ranger Bot with the 4-Channel Transmitter:
In order to link the R/C Ranger Bot with the transmitter follow the steps below:

**Note:** Before connecting the transmitter, make sure there are 4 AA batteries with enough of a charge inside the transmitter, and 4 AA batteries in the Receiver battery pack.

1. Connect the 4-channel receiver to the R/C Ranger Bot chassis.
2. Place the R/C Ranger Bot and the transmitter close to one another. Make sure there are no obstructions between the R/C Ranger Bot and the transmitter.
3. Turn on the receiver.
4. Turn on the transmitter.
5. Push and hold the Link switch on the receiver. The link switch is labelled SW, and is located beside the LED light on the 4-channel receiver.
6. When you have successfully linked the 4-channel receiver to the transmitter the LED light on the 4-channel receiver will change to solid green.

**Note:** Do not link the transmitter with the R/C Ranger Bot with the motor's main wire connected or with the servos operating as it may result in serious injury. This can be accomplished by turning off the switch to the 8x AA battery pack and unplugging the servo motors.

Also, be sure to synch one transmitter at a time. This is done so that the multiple transmitters do not cross sync with one another.

The 4-Channel Receiver Antenna:
In order to operate your R/C Ranger Bot from a distance you will need to ensure that the receiver antenna is operating correctly. Consider the tips below:

- The antenna must be kept away from conductive materials such as metal and carbon by at least half an inch. The coaxial part of the antenna does not need to follow this rule and can be close to the chassis of the R/C Ranger Bot. However, the coaxial portion of the antenna cannot and should not be bent in a small radius.
- Ensure to keep the antenna away from the R/C Ranger Bot motors as much as possible.

Motor Reversing
The channel reverse switches are used to change the direction that a motor responds to a control input from the transmitter sticks. After using the reversing function of the transmitter, ensure to check ALL the controls on the bot to be certain they are operating in the correct direction and that you did not inadvertently reverse a motor other than the one intended.

**Note:** It is imperative to check that the wheels of the R/C Ranger Bot are turning in the proper direction to save the servo motors themselves and prevent accidents.

Driving the R/C Ranger Bot
Driving Forward:
The right joystick is used to control the drive motors of the robot. Moving the joysticks operate and maneuver the R/C Ranger Bot.

Depending on how you have setup your transmitter and DC Gear motors, pushing up on the joystick will move your R/C Ranger Bot forward.

If your DC gear motors are perfectly centered, moving your joystick forward should make your R/C Ranger Bot travel in a straight line. If your motors are not calibrated on your transmitter you will notice your R/C Ranger Bot to be driving slightly to the left or right depending on the non centered motor. Adjust the direction of the robot by moving the right horizontal (aileron) trim lever in the preferred direction.
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Moving the Joystick completely to the right or the left will cause the motors to spin in opposite directions accordingly. This allows your R/C Ranger Bot to move in a circular fashion and rotate about the center.

Reversing:
To reverse your R/C Ranger Bot pull the right joystick back. This should cause your R/C Ranger Bot to move backwards in a straight line. If your motors are not calibrated on your transmitter you will notice your R/C Ranger Bot to be driving slightly to the left or right depending on the non centered motor.

Operating an Extension
To operate the servo motors of one of the R/C Ranger Bot extensions the transmitter will give commands by moving the left joystick. Moving forward and backwards will control one servo motor, while moving left and right will control another servo motor. If the joystick is in the centered location, you can also adjust the “home” position of the servo motor by adjusting the left trim levers on the joystick. This gives you flexibility of +/- 10 degrees to adjust the home position.