Goat Crawler ESC Recommendations

Losi's® 1/10-Scale Comp Crawler Race Roller™ uses worm-drive transmission gears. Using the Losi® rig with these gears requires special attention to the setup and use of your Novak equipment. Read below for compatibility and equipment recommendations.

Original Goat 2S ESC (#3219):

Novak's Goat 2S ESC can be used successfully with the Losi® Crawler, or other worm-drive crawlers, if the subsequent guidelines are followed:

1. The worm-drive gears do an excellent job of applying brakes and, as a result, the specialized hill hold brake function for the Goat 2S can result in extra ESC or motor heating. We recommend using profile 3, or Servo mode, with your Goat 2S ESC in your worm-drive crawler to combat this issue.

2. Low gear reduction, which is associated with worm-drive transmissions, results in a wheel speed that may be lower than if you used a standard-transmission vehicle, especially if using an 18.5 or 21.5-turn brushless motor. If more wheel speed is required, Novak's Crawler 13.5T Brushless Motor is a great option to increase wheel speed and retain all of the advantages of the worm-drive transmission and Goat 2S ESC software.

Goat 3S ESC (#3214):

1. Novak's Goat 3S ESC is preset to the worm-drive profile by default (Profile 2), so you should not experience any heating issues associated with running the hill hold brakes with your worm-drive crawler.

Always use Profile 2 with worm-drive transmissions.

2. Instead of using Novak's Crawler 13.5T with 2S Li-Po to gain wheel speed, you may opt to use a 3S Li-Po battery pack. With the added power and wheel speed provided by the 3S Li-Po pack, we do not recommend using the Crawler 13.5T Motor in conjunction with a worm-drive crawler. The input RPM will cause large amounts of heating to the gears and gear cases. Instead, we recommend using the Crawler 18.5T or 21.5T Brushless Motors with a 3S Li-Po pack.

   When using a 3S Li-Po pack, it is necessary to use the included 3 Amp High-Voltage Universal BEC to ensure proper operation.