

#### INTRODUCTION

Thank you for purchasing the all-new Traxxas TRX-4 unassembled kit. The design of the TRX-4 instantly obsoletes the status quo with greatly expanded features and versatility. The TRX-4 features the powerful Titan® 21T 550 motor, waterproof electronics, and a smooth XL-5 HV 3s LiPo-capable electronic speed control. The game-changing portal axles provide greater ground clearance while the rigid steel frame eliminates chassis flex and allows you to navigate tough terrain. The new Canyon Trail 1.9 tires feature tuned foam inserts to deliver superior bite on rocky surfaces with convincing scale realism. In other words, we built it the Traxxas way -- rugged, powerful, and ready to handle the rigors of remote locations and all-day driving fun!

This manual details the assembly of the TRX-4. This manual will also acquaint you with the model's many different components and its mechanical operation. Read through the manual and examine the model carefully before opening any of the parts bags included in the kit. If for some reason you think the model is not what you wanted, then do not continue any further. Your hobby dealer absolutely cannot accept a model for return or exchange which has been run or contains open bags. Please read the separate Owner's Manual before attempting to drive your new model. You can download the Owner's Manual for the TRX-4, as well as the manuals for all Traxxas vehicles, at Traxxas.com.

If you have any questions about your TRX-4, call Traxxas' technical support department at 1-888-TRAXXAS (1-888-872-9927) (U.S. residents only). Outside the U.S., call +1-972-549-3000). Technical support is available Monday through Friday, from 8:30am to 9:00pm central time. Technical assistance is also available at Traxxas.com/support or via e-mail at support@Traxxas.com.

Join thousands of registered members in our online community at Traxxas.com. Traxxas offers a full-service, on-site repair facility to handle any of your Traxxas service needs. Maintenance and replacement parts may be purchased directly from Traxxas by phone or online at Traxxas.com. You can save time, along with shipping and handling costs, by purchasing replacement parts from your local dealer. Do not hesitate to contact us with any of your product support needs. We want you to be thoroughly satisfied with your new model!

#### **ASSEMBLY HINTS**

To assemble this kit, you'll need a large flat working area where you will have plenty of room to build. Be sure it's a place where you can leave your work spread out and not in the way when you want to take a break from the assembly. Allow yourself plenty of time to build this kit; assembly time is going to vary with each individual. Experienced builders may only need 4-5 hours to assemble this kit, while others may spend an entire weekend on it. You should feel comfortable with taking as much time as needed to properly build and set up your model.

If you've been exploring the contents of your kit box, you've noticed many bags of small parts. Open only one bag at a time. To keep the parts organized, use small paper plates or several large plastic plates with partitions to contain the parts. Label the paper plates, and then pour the contents of the bags onto them. This puts the parts out in the open where you can find them easily. The plates also prevent small parts from rolling off the table.

Please read the text next to each diagram. The text contains important information, such as assembly steps, screw sizes, and part numbers. Also, pay attention to any notes that may follow some steps. Before you attempt to run your newly-built model, please read all of the instructions and precautions included in the Owner's Manual. You can download the Owner's Manual for the TRX-4, as well as the manuals for all Traxxas vehicles, at Traxxas.com.

Remember, as you assemble your Traxxas model, you are not alone. If you have any questions or run into difficulties, call Traxxas' technical support department at 1-888-TRAXXAS (1-888-872-9927) (U.S. residents only). Outside the U.S., call +1-972-549-3000). Technical support is available Monday through Friday, from 8:30am to 9:00pm central time.

#### **ITEMS YOU WILL NEED**

Some of the tools that you may need in the maintenance and repair of your model have been provided. These include:

- 2.0mm "T" wrench 2.5mm "L" wrench
- 4-way wrench High Performance Grease
- Silicone Shock Oil

#### Required but not included:

- Traxxas Ultra Premium Tire Glue, Part #6468 (CA glue)
- 4 AA alkaline batteries
- 6 or 7-cell NiMH battery pack, 2s or 3s LiPo battery pack, with Traxxas High-Current connector
- Battery charger
- Safety glasses
- Needle nose pliers

The following items are not required for the operation of your model, but are a good idea to include in any RC toolbox:

- Metric hex driver set (Highly recommended for kit assembly)
- Hobby knife
- Side cutters

These items can be purchased from your hobby dealer.

#### **RADIO SYSTEM INSTRUCTIONS**

The Traxxas TQi 2.4GHz radio system is provided with your unassembled kit. Complete instructions for operating the radio system are included in the TRX-4 Owner's Manual. You can download the Owner's Manual for the TRX-4, as well as the manuals for all Traxxas vehicles, at Traxxas.com.

#### WARRANTY STATEMENT

Every effort has been made in component design and material selection to make your model as durable as possible and still maintain a weight consistent with good handling. Because this model is intended for operation under severe conditions, no warranties are expressed nor implied relating to the longevity of the parts. If you find that a part has a defect in materials or workmanship, please return it to us BEFORE IT IS USED, and we will gladly replace it. Damage caused by excessive force, abuse, neglect or failure to adhere to the precautions outlined in the literature contained with your model will void the warranty.

#### **HARDWARE DESCRIPTIONS**

The following chart is provided to help you identify the many different sizes and types of hardware that are used in the assembly of this model. Note the difference between the length measurements of the roundhead and countersunk screws. A ruler is provided at the bottom of each page to measure the length of the screws in millimeters.



| 0        | ccs | Countersunk Cap Screw |   | GS  | Set (Grub) Screw |
|----------|-----|-----------------------|---|-----|------------------|
| 6        | CS  | Cap Screw             | 0 | PTW | PTFE Washer      |
| <b>O</b> | FCS | Flathead Cap Screw    | 0 | MW  | Metal Washer     |
| 6        | BCS | Buttonhead Cap Screw  | C | Е   | E-Clip           |
|          | NL  | Nylon Locknut         | 0 | BB  | Ball Bearing     |

#### **ICON DESCRIPTIONS**

There are icons in this assembly instruction which indicate certain actions needed during assembly.



Grease Tube Apply included grease to part indicated. White: Silicone Dark: High Performance



Turn Icon Indicates assembly needs to be flipped or turned around.



Oil Bottle Use included silicone shock oil.



**Repeat Icon** Repeat step the number of times indicated.



**Optional Part Icon** Optional part available. Refer to included parts list.



Aluminum Part Icon Aluminum accessory part available. Refer to included parts list.

















#### Completed transmission assembly



0 10 20 30 40 50 60 70 80 90 100

## **B. DIFFERENTIAL ASSEMBLY**



**B. DIFFERENTIAL ASSEMBLY** 







0 10 20 30 40 50 60 70 80 90 100























0 10 20 30 40 50 60 70 80 90 100













0 10 20 30 40 50 60 70 80 90 100















0 10 20 30 40 50 60 70 80 90 100





0 10 20 30 40 50 60 70 80 90 100



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# **G. SUSPENSION & DRIVELINE INSTALLATION**



## **G. SUSPENSION & DRIVELINE INSTALLATION**



0 10 20 30 40 50 60 70 80 90 100

# **G. SUSPENSION & DRIVELINE INSTALLATION**





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## **H. FINAL CHASSIS ASSEMBLY**





## **H. FINAL CHASSIS ASSEMBLY**





# H. FINAL CHASSIS ASSEMBLY



## **SAFETY PRECAUTIONS**



**FIRE HAZARD!** Your model is able to use LiPo batteries. Charging and discharging batteries has the potential for fire, explosion, serious injury, and property damage if not performed per the instructions. Before use, read and follow all manufacturer's instructions, warnings, and precautions. In addition, Lithium Polymer (LiPo) batteries pose a SEVERE risk of fire if not properly handled per the instructions and require special care and handling procedures for long life and safe operation. LiPo batteries are intended only for advanced users that are educated on the risks associated with LiPo battery use. Traxxas does not recommend that anyone under the age of 18 use or handle LiPo battery packs without the supervision of a knowledgeable and responsible adult. Dispose of used batteries according to the instructions.

- Important Warnings for users of Lithium Polymer (LiPo) batteries:
- Your model is able to use LiPo batteries. LiPo batteries have a minimum safe discharge voltage threshold that should not be exceeded. The electronic speed control is equipped with built-in Low-Voltage Detection that alerts the driver when LiPo batteries have reached their minimum voltage (discharge) threshold. It is the driver's responsibility to stop immediately to prevent the battery pack from being discharged below its safe minimum threshold.
- Low-Voltage Detection is just one part of a comprehensive plan for safe LiPo battery use. It is critical to follow all instructions for safe and proper charging, use, and storage of LiPo batteries. Make sure you understand how to use your LiPo batteries. If you have questions about LiPo battery usage, please consult with your local hobby dealer or contact the battery manufacturer. As a reminder, all batteries should be recycled at the end of their useful life.
- ONLY use a Traxxas iD charger to charge Traxxas iD batteries. ONLY use a Lithium Polymer (LiPo) balance charger with a balance adapter port to charge LiPo batteries. Never use NiMH or NiCadtype chargers or charge modes to charge LiPo batteries. DO NOT charge LiPo batteries with a NiMH-only charger. The use of a NiMH or NiCad charger or charge mode will damage LiPo batteries and may cause fire, personal injury, and/or property damage.
- NEVER charge LiPo battery packs in series or parallel. Charging packs in series or parallel may result in improper charger cell recognition and an improper charging rate that may lead to overcharging, cell imbalance, cell damage, and fire.
- ALWAYS inspect your LiPo batteries carefully before charging. Look for any loose leads or connectors, damaged wire insulation, damaged cell packaging, impact damage, fluid leaks, swelling (a sign of internal damage), cell deformity, missing labels, or any other damage or irregularity. If any of these conditions are observed, do not charge or use the battery pack. Follow the disposal instructions included with your battery to properly and safely dispose of the battery.
- DO NOT store or charge LiPo batteries with or around other batteries or battery packs of any type, including other LiPos.
- Store and transport your battery pack(s) in a cool dry place. DO NOT store in direct sunlight. DO NOT allow the storage temperature to exceed 140°F or 60°C, such as in the trunk of a car, or the cells may be damaged and create a fire risk.
- DO NOT disassemble LiPo batteries or cells.
- DO NOT attempt to build your own LiPo battery pack from loose cells.

## Charging and handling precautions for all battery types:

 BEFORE you charge, ALWAYS confirm that the charger settings exactly match the type (chemistry), specification, and configuration of the battery to be charged. DO NOT exceed the maximum manufacturer recommended charge rate.



- DO NOT attempt to charge non-rechargeable batteries (explosion hazard), batteries that have an internal charge circuit or a protection circuit, batteries that have been altered from original manufacturer configuration, or batteries that have missing or unreadable labels, preventing you from properly identifying the battery type and specifications. ALWAYS use a Traxxas iD charger to charge Traxxas iD batteries. DO NOT use a non-Traxxas charger to charge Traxxas iD batteries. It is not recommended, but if you choose to use a non-Traxxas charger or battery, read and follow all of the manufacturer's warnings and instructions.
- DO NOT let any exposed battery contacts or wires touch each other. This will cause the battery to short circuit and create the risk of fire.
- While charging or discharging, ALWAYS place the battery (all types of batteries) in a fire retardant/fire proof container and on a non-flammable surface such as concrete.
- DO NOT charge batteries inside of an automobile. DO NOT charge batteries while driving in an automobile.
- NEVER charge batteries on wood, cloth, carpet, or on any other flammable material.
- ALWAYS charge batteries in a well-ventilated area.
- REMOVE flammable items and combustible materials from the charging area.
- DO NOT leave the charger and battery unattended while charging, discharging, or anytime the charger is ON with a battery connected. If there are any signs of a malfunction or in the event of an emergency, unplug the charger from the power source and disconnect the battery from the charger.
- DO NOT operate the charger in a cluttered space, or place objects on top of the charger or battery.
- If any battery or battery cell is damaged in any way, DO NOT charge, discharge, or use the battery.
- Keep a Class D fire extinguisher nearby in case of fire.
- DO NOT disassemble, crush, short circuit, or expose the batteries to flame or other source of ignition. Toxic materials could be released. If eye or skin contact occurs, flush with water.
- If a battery gets hot to the touch during the charging process (temperature greater than 110°F / 43°C), immediately disconnect the battery from the charger and discontinue charging.
- Allow the battery pack to cool off between runs (before charging).
- ALWAYS unplug the charger and disconnect the battery when not in use.
- ALWAYS unplug the battery from the electronic speed control when the model is not in use and when it is being stored or transported.
- DO NOT disassemble the charger.
- REMOVE the battery from your model or device before charging.
- DO NOT expose the charger to water or moisture.
- ALWAYS store battery packs safely out of the reach of children or pets. Children should always have adult supervision when charging and handling batteries.
- Nickel-Metal Hydride (NiMH) batteries must be recycled or disposed of properly.
- Always proceed with caution and use good common sense at all times.

## **SAFETY PRECAUTIONS**

All of us at Traxxas want you to safely enjoy your new model. Operate your model sensibly and with care, and it will be exciting, safe, and fun for you and those around you. Failure to operate your model in a safe and responsible manner may result in property damage and serious injury. The precautions outlined in this manual should be strictly followed to help ensure safe operation. You alone must see that the instructions are followed and the precautions are adhered to.

#### **Important Points to Remember**

- Your model is not intended for use on public roads or congested areas where its operation can conflict with or disrupt pedestrian or vehicular traffic.
- Never, under any circumstances, operate the model in crowds of people. Your model is very fast and could cause injury if allowed to collide with anyone.
- Because your model is controlled by radio, it is subject to radio interference from many sources that are beyond your control. Since radio interference can cause momentary losses of radio control, always allow a safety margin in all directions around the model in order to prevent collisions.
- The motor, battery, and speed control can become hot during use. Be careful to avoid getting burned.
- Don't operate your model at night, or anytime your line of sight to the model may be obstructed or impaired in any way.

### **Speed Control**

Your model's electronic speed control (ESC) is an extremely powerful electronic device capable of delivering high current. Please closely follow these precautions to prevent damage to the speed control or other components.

- **Disconnect the Battery:** Always disconnect the battery or batteries from the speed control when not in use.
- Insulate the Wires: Always insulate exposed wiring with heat shrink tubing to prevent short circuits.

- Transmitter on First: Switch on your transmitter first before switching on the speed control to prevent runaways and erratic performance.
- **Don't Get Burned:** The ESC and motor can become extremely hot during use, so be careful not to touch them until they cool. Supply adequate airflow for cooling.
- Use the Factory-Installed Connectors: Do not change the battery and motor connectors. Improper wiring can cause fire or damage to the ESC. Please note that modified speed controls can be subject to a rewiring fee when returned for service.
- No Reverse Voltage: The ESC is not protected against reverse polarity voltage.
- No Schottky Diodes: External Schottky diodes are not compatible with reversing speed controls. Using a Schottky diode with your Traxxas speed control will damage the ESC and void the 30-day warranty.
- Always adhere to the minimum and maximum limitations of the speed control as stated in the specifications table in the Owner's Manual. If your

ESC operates on two batteries, do not mix battery types and capacities. Use the same voltage and capacity for both batteries. Using mismatched battery packs could damage the batteries and electronic speed control.

### Recycling Traxxas Power Cell NiMH Batteries

Traxxas strongly encourages you to recycle Power Cell NiMH batteries when they reach the end of their useful life. Do not throw batteries in the trash. All Power Cell NiMH battery packs display the RBRC (Rechargeable Battery Recycling Corporation) icon, indicating they are recyclable. To find a recycling center near you, ask your local hobby dealer or visit www.call2recycle.org.

## **QUICK START GUIDE**

The following guide is an overview of the procedures for getting your model running. The complete manual for your model can be viewed and downloaded by following the link on the cover of this manual or by scanning the OR code. Please read this entire manual for complete instructions on the proper use and maintenance of your model.

### **Read the Safety Precautions**

For your own safety, understand where carelessness and misuse could lead to personal injury and product damage.

## Prepare Your Model

## Selecting a charger and batteries for your model

Your model does not include a battery or charger. The speed control in the model is compatible with both LiPo and NiMH batteries. One NiMH or 2s LiPo battery equipped with a Traxxas High-Current Connector is required. Traxxas Power Cell iD batteries are strongly recommended for maximum performance and safer charging. The following chart lists all the available Power Cell batteries for your model:

#### LiPo Batteries with iD

- 2849X 4000mAh 11.1V 3-Cell 25C LiPo Battery 2872X 5000mAh 11.1V 3-Cell 25C LiPo Battery 5800mAh 7.4V 2-Cell 25C LiPo Battery 2843X
- 2869X 7600mAh 7.4V 2-Cell 25C LiPo Battery

## NiMH Batteries with iD

- 2923X Battery, Power Cell, 3000mAh (NiMH, 7-C flat, 8.4V)
- 2940X Battery, Series 3 Power Cell, 3300mAh (NiMH, 7-C flat, 8.4V)
- Battery, Series 4 Power Cell, 4200mAh (NiMH, 7-C flat, 8.4V) 2950X
- 2960X Battery, Series 5 Power Cell, 5000mAh (NiMH, 7-C flat, 8.4V)

## WARNING: FIRE HAZARD!

Users of Lithium Polymer (LiPo) batteries must read the Warnings and Precautions beginning on page 2. You MUST use a LiPo balance charger for LiPo batteries or battery damage with the potential for fire will result.

Make certain you choose the correct type of charger for the batteries you select. Traxxas recommends you choose a genuine Traxxas EZ-Peak iD charger for safer charging and maximum battery life and performance.

| Charger                       | Part No. | NiMH<br>Compatible | LiPo<br>Compatible | Battery<br>iD | Max.<br>Cells |
|-------------------------------|----------|--------------------|--------------------|---------------|---------------|
| EZ-Peak Plus,<br>4 amps       | 2970     | YES                | YES                | YES           | 3s            |
| EZ-Peak Live,<br>12 amps      | 2971     | YES                | YES                | YES           | 4s            |
| EZ-Peak Dual,<br>8 amps       | 2972     | YES                | YES                | YES           | 3s            |
| EZ-Peak Live<br>Dual, 26 amps | 2973     | YES                | YES                | YES           | 4s            |
| EZ-Peak Plus 4s,<br>8 amps    | 2981     | YES                | YES                | YES           | 4s            |

## Install batteries in the transmitter



### Install battery packs in the model

Install the battery pack with the battery wires facing the rear of the model. Swing the battery hold down towards the chassis and snap (lock) the end into the front hold-down retainer.

Note: The battery hold down can be rotated on its pivot to accommodate different height battery packs.

#### Compatible batteries:

• 6- and 7-cell NiMH • 2- and 3-cell LiPo





## **ATTENTION: USERS OF NIMH BATTERIES**

Your model comes from the factory with Low-Voltage Detection activated. Low-Voltage Detection is only for use with LiPo batteries. To disable Low-Voltage Detection, refer to the EZ-Set Tips card attached to your model, or see the "Electronic Speed Control Adjustments" section of this guide.

## **Turning on Your Model**

### Turn on the transmitter

Always turn the transmitter on first, before turning on the model. The transmitter's LED will glow.

## Plug the battery into the speed control

Align the + and - markings. Make certain the battery plug is completely inserted.

### Turn on the model

Press and release the EZ-Set button on the speed control. Do not hold the button down. The speed control's LED will glow.



## **Before Operating Your Model**

### **Check servo operation**

Confirm the model's wheels turn right and left when the transmitter steering wheel is turned right and left. The front wheels should be pointing straight ahead. If they are turned slightly, slowly adjust the steering trim control on the transmitter until they are pointing straight ahead.

#### Range test the radio system

With a friend's help, check servo operation at the farthest distance you plan to drive the model and confirm that there is no radio interference.

## **QUICK START GUIDE**

## **Operating Your Model**



Note: Return the transmitter's trigger to neutral and push up again to activate reverse throttle unless the ESC is in Crawl Mode (see the "Selecting a Throttle Mode" section for additional information).

If the model becomes stuck against an object, do not continue to run the motor. Remove the obstruction before continuing. Do not push or pull objects with the model.

#### Shifting the High-Low Transmission

TRX-4's High-Low Transmission is operated via the red rocker switch on the transmitter grip.



**Depress the lower part of the switch to engage High** (for greater speed).



**Depress the upper part of the switch to engage Low** (for greater climbing torque).

Shifting from low gear into high gear can be performed at any speed. For smoother operation, reduce the speed of the model before shifting from high gear into low gear.

#### **Operating the T-Lock Differentials**

The switch on top of the transmitter operates the front and rear differential locking mechanism. The differentials can be locked or unlocked at any time during most driving conditions. If the model is stuck and there is wheelspin on a single wheel (one side of an unlocked differential is freewheeling), then release the throttle and allow the wheels to stop before locking the differential. Apply throttle slowly until the differentials fully engage or disengage.



**Switch rearward** = both differentials unlocked. Best handling and steering performance (smaller turning radius). This is the best setting for most of your driving.



**Switch centered** = front differential locked. Enhanced climbing ability and traction as both front tires work to pull the vehicle forward. This is helpful for steep inclines. Turning radius will be decreased. Reduced steering performance.

Switch forward = both differentials locked. Maximum climbing ability and traction. Reduced steering performance. On surfaces with good traction, it is normal for the truck to appear to alternately bind and slip the tires when attempting tight turns with the differentials fully locked.

Locked differentials can be used at any time, but unlocking the differentials greatly improves vehicle handling during high-speed driving.

### Transmitter Adjustments

#### **Steering Trim**

Turn the steering trim knob to precisely set the steering neutral point. To adjust, drive the vehicle forward slowly while "steering" with the trim knob until the vehicle travels in a straight line with no steering input.



### **Cruise Control**

The TRX-4 is equipped with cruise control, which maintains vehicle speed for more comfortable long-distance travel (such as



hiking on trails). To operate the cruise control, accelerate to your desired speed and press the SET button on the transmitter to lock the speed in. Your model will continue at the set speed until you apply the brakes. You can fine tune the speed to exactly match your pace by adjusting the multi-function knob on the transmitter. Turn the knob clockwise to increase speed, counterclockwise to reduce speed. You can accelerate and drive faster with the cruise control set, and the vehicle will resume the set speed when the throttle is released (*Resume function*).

The TQi transmitter has additional tuning features that can be accessed by the MENU and SET buttons. For details, download the complete manual by following the link on the cover of this manual, or by scanning the QR code.

## Electronic Speed Control Adjustments

ATTENTION: USING LIPO BATTERIES

When you turn your model on, the speed control's status LED is green, indicating that Low-Voltage Detection is activated to prevent over-discharging of LiPo batteries. LiPo batteries are intended only for the most advanced users that are educated on the risks associated with LiPo battery use.



## **WARNING: FIRE HAZARD!** Do not use LiPo batteries in this vehicle with Low-Voltage Detection disabled.

For NiMH battery users, follow these steps to disable Low-Voltage Detection:

- 1. Turn the model on. Make sure the LED on the speed control is on and green.
- Press and hold the EZ-Set button for ten seconds. The LED will turn off and then light red, and the motor will beep three times. Release the button.



3. Low-Voltage Detection is now DISABLED.

## **QUICK START GUIDE**

## Selecting a Throttle Mode:

#### SPORT, RACE, TRAINING, TRAIL, OR CRAWL

- 1. Connect fully charged batteries to the model and turn on your transmitter.
- With the model off, press and hold the EZ-Set button until the LED turns solid green, then solid red, and then begins blinking red. It will blink once, then twice, then three times, then repeat.

**One blink = Sport Mode** is the default setting. It allows full forward and reverse throttle.

**Two blinks = Race Mode** removes reverse throttle in case your track does not allow it.

**Three blinks = Training Mode** will slow the model down by 50% for young or inexperienced drivers.

**Four blinks = Trail Mode** is similar to Sport Mode, but with added drag brake when the throttle trigger is at neutral. This is the default setting for the TRX-4 and provides a good balance of smooth driving and additional drag brake for descending hills.

Five blinks = Crawl Mode allows 100% brake (hill hold) with immediate reverse when the throttle is at neutral. This setting is best suited for technical courses where very precise movements are required.

- 3. Release the EZ-Set button after the number of blinks for the mode you wish to select. *Note: If you missed the mode you wanted, keep the EZ-Set button pressed down and the blink cycle will repeat.*
- The LED will blink and then turn solid green (Low-Voltage Detection ACTIVE) or red (Low-Voltage Detection DISABLED). The model is now ready to drive in the mode you have selected.

### **LED Codes and Protection Modes**

 Slow Blinking Red: Low battery voltage. If you see this code because a NiMH battery was connected to an ESC with Low- Voltage Detection turned on, then follow the calibration steps below to release the code and change the ESC to NiMH mode.



• Fast Blinking Red: Overtemp. Allow the ESC to cool before continuing. The ESC can get too hot in situations such as climbing and crawling in high gear, which increases load on the system. Use low gear for climbing and crawling.





