

# UPLINKROBOTICS



## QUICK START GUIDE FOR MARTEN MK2 PRO ZOOM CRAWLER

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307.225.9210

[support@uplinkrobotics.com](mailto:support@uplinkrobotics.com)

# Important User Information

**By using this product you agree that you have read the following list of guidelines and will follow all instructions outlined in this Quick Guide:**

- Charge Crawler Battery and Video Monitor before use
- Always turn the transmitter ON FIRST and OFF LAST \*
- Never Operate the Video Monitor without Antennas
- Never leave the device unattended while turned on
- Never leave the transmitter or video monitor on while unattended
- Never leave the device on after the battery indicator reports zero bars
- Never use or store the device in an environment under 32°F or over 120°F
- Never use or charge the Crawler battery if it has any physical damage or has been discharged past 3.2V per cell indicated by zero bars on the battery indicator
- Never continue to try to drive the crawler if one or more wheels is caught and unable to turn

*\* You will not have control over the device if the transmitter is off*

**If controller is not connecting, move it away from the crawler.**

## Links

**Demo Video** - [uplinkrobotics.com/marten-mk2-pro-quick-guide](http://uplinkrobotics.com/marten-mk2-pro-quick-guide)

### Social Media Links

**Facebook** - [facebook.com/uplinkrobotics](https://facebook.com/uplinkrobotics)

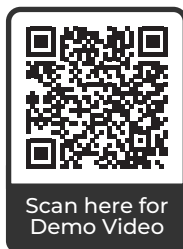
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**Website** - [uplinkrobotics.com](http://uplinkrobotics.com)

**Forum** - [forum.uplinkrobotics.com](http://forum.uplinkrobotics.com)

**Store** - [uplinkroboticsstore.com](http://uplinkroboticsstore.com)



# Charging Instructions

## Transmitter:

The transmitter takes a 2S battery that are inserted in the back under the hinged battery door. They can be recharged with the included crawler charger using the left port with only 3 pins.

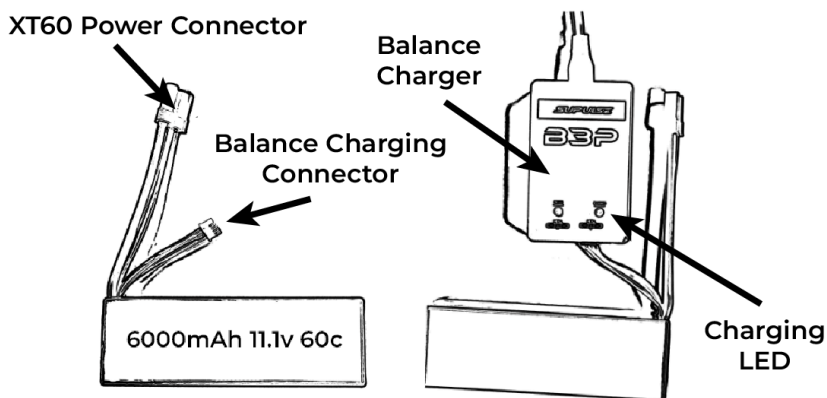
## Crawler Battery:

The supplied 11.1V 60C battery should be charged only using the supplied battery charger. This charger is connected using the balance charging port on the battery. When the battery is plugged in, the charging LED will be RED and then turn BLUE once the battery is fully charged.

## Video Monitor:

The Video Monitor is charged using the included charging adapter and cable. The charging light will turn green once it is fully charged.

*\*Note: LiPo batteries are extremely hazardous if charged incorrectly. Only charge with the included charger. Do not charge if there is any physical damage to the battery or charger.*

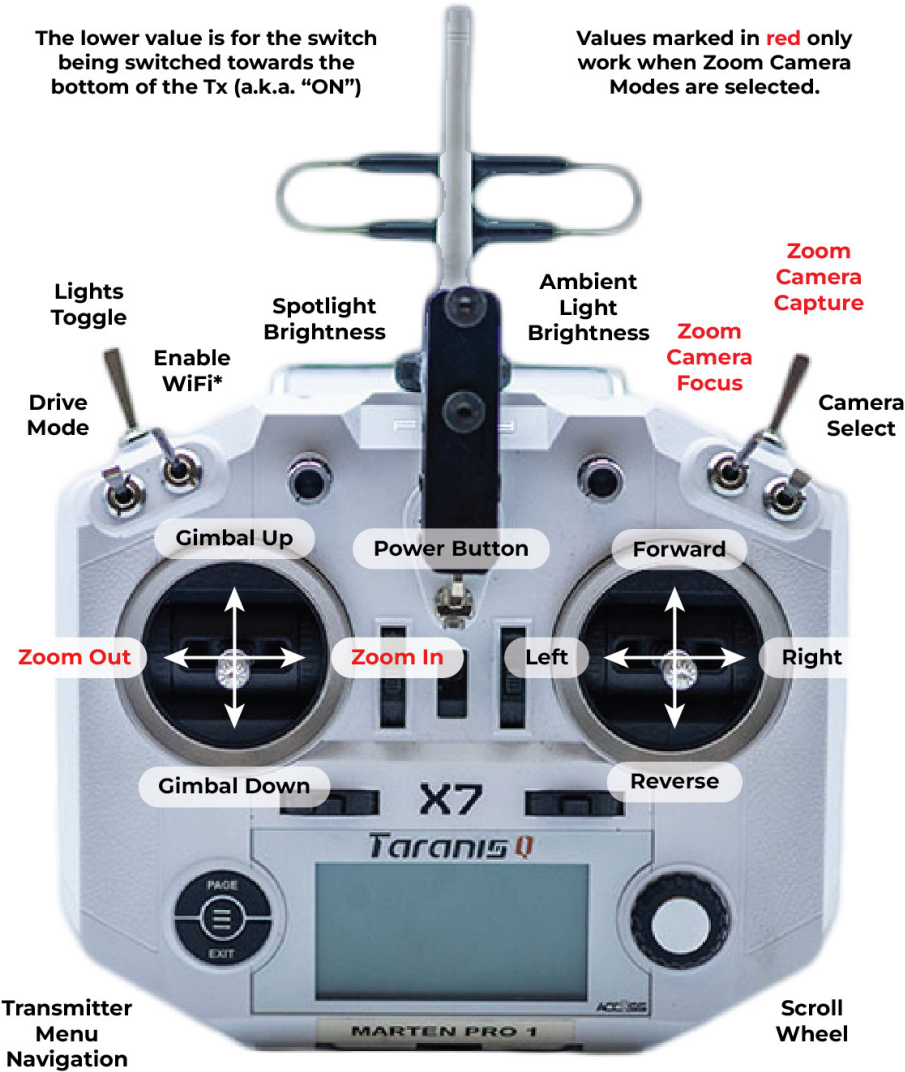


**\*\*DO NOT PLUG IN THE CRAWLER BATTERY  
AND THE TRANSMITTER BATTERY INTO  
THE CHARGER AT THE SAME TIME\*\***

# Transmitter Legend

The lower value is for the switch being switched towards the bottom of the Tx (a.k.a. "ON")

Values marked in **red** only work when Zoom Camera Modes are selected.



\*Flip up and down quickly 2 times to enter WiFi mode

# Switches Description

## **Drive Mode:**

- 3 positions
  - Up: Normal Driving mode – use this most of the time
  - Middle: Slow Driving mode – use this for more accurate and slow driving
  - Down: Aggressive/Unstuck mode – use this to rock the crawler loose if stuck

## **Enable WiFi:**

- Switch all the way up and back down twice quickly to enter Wi-Fi update mode. Switch once to exit and resume normal operation

## **Enable Lights:**

- Turns the lights on and off

## **Enable Crawler:**

- 3 positions
  - Up: Enable Crawler – everything works as expected
  - Middle: Disable Motors – everything but the motors work as expected
  - Down: Update Mode – the crawler will not respond to any commands and awaits a Wi-Fi connection from the UplinkRobotics Crawler App to update the firmware.

## **Spotlight:**

- Dimming knob for the spotlight.
- Turn clockwise to increase the brightness of the spotlight.

## **Ambient Lights:**

- Dimming knob for the ambient light strips.
- Turn clockwise to increase the brightness of the ambient light strips.

## **Zoom Camera Focus:**

*This switch only works when the Camera Select Switch is in the middle (Zoom Camera Video) or bottom (Zoom Camera Picture)*

- 3 positions
  - Up: Push focus towards objects that are farther away
  - Middle: Auto-focus – leave here unless manual focus is needed
  - Down: Pull focus towards objects that are closer

## Switches Description - Cont.

### Camera Select:

- 3 positions
  - Up: Wide Angle Driving camera – use this when driving around for better viewing
  - Middle: Zoom Camera Video Mode – use this to record videos
  - Down: Zoom Camera Picture Mode – use this to take pictures

### Zoom Camera Capture:

*This switch only works when the Camera Select Switch is in the middle (Zoom Camera Video) or bottom (Zoom Camera Picture)*

- Spring loaded momentary switch
- Pull up and release to either take a picture or start/stop recording video

## Quick Start Instructions

**Note:** *Never operate the Marten Pro Crawler if the battery level indicator does not have any bars active or the voltage on the Video Monitor is less than 10.5V. Operation after the indicator reports zero battery or lower than 10.5V will damage the Crawler battery.*

1. Turn on the Transmitter using the Transmitter Power Switch located in the center of the transmitter by holding it down until it vibrates.
  - a. Press in the scroll wheel until the screen says MartenPro###
  - b. Center the focus switch
2. Remove the thumbscrew lid from the Marten Pro Crawler and plug in the included Crawler battery.
3. Tuck the extra wire into the battery tray space, slide the battery into the slot, and replace the thumbscrew lid.
4. Turn on the Crawler power switch located on the back of the Crawler.



## Quick Start Instructions - Cont.

5. You should now be able to control the Crawler.
  - a. The right drive stick on the transmitter is used to move the Crawler.
  - b. The left camera control stick is used to aim the camera up and down.
  - c. The two rotary knobs control the spotlight and ambient lights.
6. **If the transmitter does not connect, move it farther away from the crawler.**
7. Ensure the video monitor antennas are screwed in tight and turn on the Video Monitor by holding the power button. If video does not display, press the search button to find the correct channel.
8. Slide the Video Monitor onto the TX using the metal plate on the back of the VM.
9. The Marten Pro has two cameras, a wide-angle driving camera and a 10X variable zoom camera. They can be switched between but only the zoom camera can capture images and video.
10. Once the battery gets below 10.0V, the crawler will briefly stop moving and flash the lights once every 10 seconds to alert the user. Once the battery drops below 9.5V, the crawler will stop moving, flash the lights, and buzz the motors every 10 seconds. Once this occurs, the battery should be replaced as it has been over discharged. The crawler will remain operational so it can be driven out from an area, but the battery must be disposed of safely and replaced.

More information about using the cameras can be found in the Camera Control Section of this guide.



# Camera Control

1. There are two cameras on the Marten Pro. One is a wide-angle lens that allows the operator to see much better while driving. The other camera is a 10X Variable Zoom camera that can record 1080p video or 4MP images.
2. To switch between the two cameras, the top right 3-position switch on the transmitter is used. This switches between the Driving Camera (switch up), to the Zoom Camera in video mode (switch in middle), and the Zoom Camera in picture mode (switch down).

*NOTE: The gimbal operates differently when the zoom camera is selected. The center portion of the gimbal control points the camera over a small range for fine control when zoomed in. The range can be moved by raising the stick all the way up or all the way down.*

3. The right switch located on the top of the transmitter is used to start/stop recording when in video mode, and take a picture when in picture mode.

## Driving Mode and Enable Switch

The top left switch changes the way that the Marten Pro drives.

1. The top “Normal” mode operates with smooth control of the crawler allowing full speed but precise movements
2. The middle “Slow” mode limits the max speed that the crawler can use and turns much slower to make slow, accurate movements easier
3. The bottom “Aggressive mode” makes the throttle extremely sensitive and should not be used for normal driving. This mode should ONLY BE used if the crawler gets high-centered to create a rocking motion and get the crawler unstuck. **DO NOT USE THIS MODE FOR EXTENDED PERIODS OF TIME OR IT WILL OVERHEAT AND DAMAGE THE MOTORS**

The switch next to the driving mode switch is used to put the crawler into Wi-Fi update mode where an app can be used to update the firmware on the crawler unlocking new features as we add them.

## Powering Off the Crawler

1. Turn off the Crawler first, then turn off the Video Monitor with the power button on the right of the device.
2. Now turn off the transmitter with the power switch in the center. You will have to hold it until the transmitter vibrates.

Failing to Turn off the Power Switch on the Crawler after use will damage the battery. Always turn the Marten Pro Crawler Power Switch to off when not in use.

## Saving Video Instructions

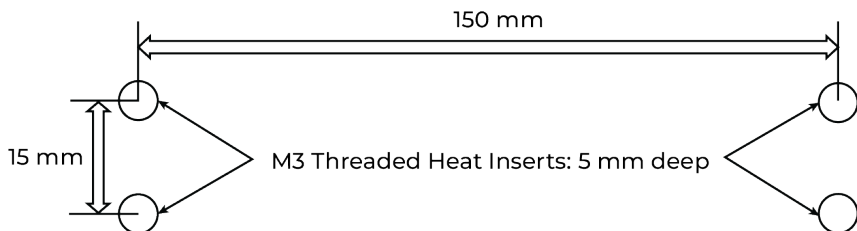
Using the Micro SD card in the Video Monitor:

1. Turn off the Crawler first, then turn off the Video Monitor with the power button on the right of the device.
2. Remove the Micro SD card from under the battery tray in the crawler.
3. Download the image/video contents from the Micro SD card
4. When completed, reinsert the Micro SD card into crawler.

**\*\*Note the crawler can only accept up to a 32GB SD card\*\***

## Auxiliary Mounts for Attachments

The crawler has auxiliary mounting locations on the front and rear for future expansion and add-ons to the crawler. The mounting pattern is as follows:



# Troubleshooting and FAQs

## **Q - The crawler arrived with deflated tires.**

**A** - The tires are shipped from a high elevation (~7,200ft). When being shipped to lower elevations (i.e.. sea level), the pressure change will force air out of the beadlocked tires. To fix, please unscrew the beadlock screws on the wheel, let air in, and then reinstall the screws.

## **Q - The monitor shows black.**

**A** - Ensure the camera is turned on (a blinking LED on the black camera). If the camera is not turned on, please press the power button until the camera turns on.

## **Q - The monitor shows static.**

**A** - Press the "Search" button on the monitor while the crawler is on. The search feature will go through all available video channels and pick the best. We usually ship our crawlers on channels "A1" or "A7" with some exceptions.

## **Q - The crawler wheels slowly turn even when not touching the transmitter**

**A** - When you start the crawler, ensure that you are not touching the drive stick on the transmitter. If tires still rotate, use the trim buttons for the drive control stick (shown in the transmitter diagram). For example, if the crawler slowly moves forward, trim the throttle down until it stops moving.

# General Terms and Conditions

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- I. These terms and conditions are governed by and construed in accordance with the laws of the State of Wyoming, USA. Any disputes arising from or related to these terms and conditions or the use of the products shall be subject to the exclusive jurisdiction of the courts located in Albany County, Wyoming. You consent to the personal jurisdiction and venue of such courts and waive any objections thereto.

## **3. Severability**

- I. If any provision of these terms and conditions is found to be invalid or unenforceable by a court of competent jurisdiction, such provision shall be severed from the rest of the terms and conditions and the remaining provisions shall remain in full force and effect.

## **4. Entire Agreement**

- I. These terms and conditions constitute the entire agreement between you and UplinkRobotics LLC regarding the use of the products. No other representations or promises have been made or relied upon by either party. Any modifications or amendments to these terms and conditions must be in writing and signed by both parties.

*\*Laws vary by region and could affect the legality of operating this technology. Before using this device, please ensure it meets your local regulations for video and control transmission. We urge you to research or consult local authorities to comply with all relevant regulations. Responsibility for legal and safe operation rests with the user.\**

## Contact Us

**To contact the team, please  
reach out at:**

**307.225.9210**

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