

# UPLINKROBOTICS



## QUICK START GUIDE FOR MARTEN V1.2 INSPECTION CRAWLER

# Table of Contents

Change Log ..... pg.3

Links ..... pg.3

Marten Crawler Specifications ..... pg.4

What's Included in the Box ..... pg.5

Before Using Your Crawler ..... pg.6

Crawler Overview and Design ..... pg.7

Crawler Controls ..... pg.8

Powering Off the Crawler ..... pg.8

Camera Features ..... pg.10

Downloading Photos and Videos ..... pg.11

Charging Instructions ..... pg.13

Auxiliary Mounts of Attachments ..... pg.15

Troubleshooting and FAQs ..... pg.16

General Terms and Conditions ..... pg.17

Contact Us ..... pg.19

**For technical support or  
repair inquiries:**

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# Change Log

## **V1.0 - April 2023**

+Initial Crawler

## **V1.1 - August 2023**

+Increased tire diameter and width

+Improved motor couplers

+Improved monitor mount

+Reliability improvements

## **V1.2 - March 2024**

+Improved transmitter (controller)

+Improved controls

+New and improved camera

+Camera gimbal can look up further

+Reliability improvements

# Links

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

## **Social Media Links**

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

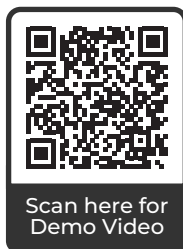
**LinkedIn** - [linkedin.com/company/uplinkrobotics](https://linkedin.com/company/uplinkrobotics)

**Instagram** - [instagram.com/uplinkrobotics](https://instagram.com/uplinkrobotics)

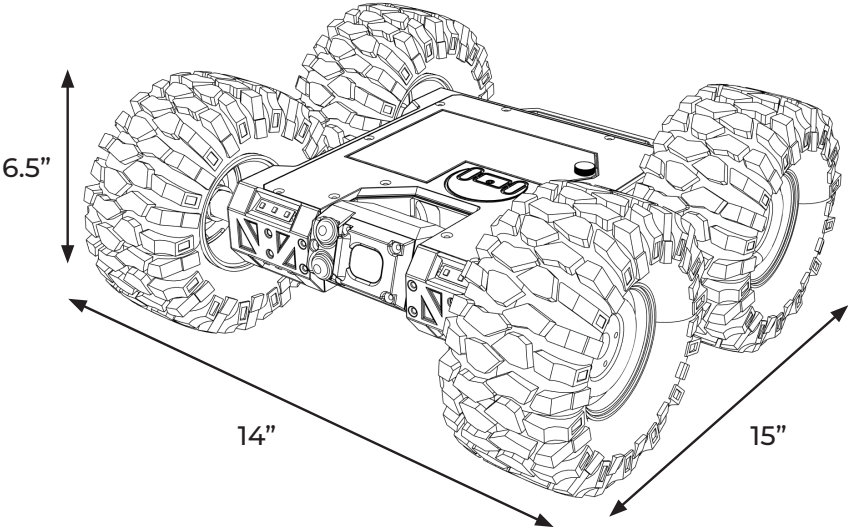
**Website** - [uplinkrobotics.com](https://uplinkrobotics.com)

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

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



# Marten Crawler Specifications



Specifications	
Crawler Dimensions	15" x 14" x 6.5" (W x L x H)
Max Crawler Speed	1.75 MPH (2.5 ft/second)
Battery Life	Up to 4 hours under typical use
Control Distance (Line of Sight)	Up to 400 ft
Video Distance (Line of Sight)	Up to 400 ft
Video Distance (Obstructed)	Very dependent on scenario
Video Streaming Method	Analog video
Video Resolution	4K30FPS, 2.7K60FPS, 1080P120FPS, 1080P60FPS
Image Resolution	12 mp
Camera Resolution	~60° Up and ~30° Down

# What's Included in the Box

AV Input Cable



Video Monitor  
Extras



Power Cable



Cleaning Cloth

Mounting  
Hardware



Crawler  
Camera Extras



Battery\*

Data Cable



Rear Door\*



Extra  
Hardware

Wheel Bolt



M3 Set  
Screw



M3 x 8



M3 x 12



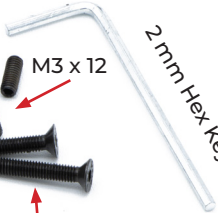
M3 x 20



Thumbscrew



2mm Hex Key



*\*Only needed if camera is removed from crawler.*

Tweezers  
for SD Card



# Before Using Your Crawler

## Before first use:

- Ensure all components arrived undamaged from shipping.
- Peel protective film off of camera lens.
- Charge crawler battery, controller battery, and the monitor. (See page 8)

*By using this product, you agree that you have read the following list of guidelines and terms and conditions, and will follow all instructions outlined in this quick guide.*

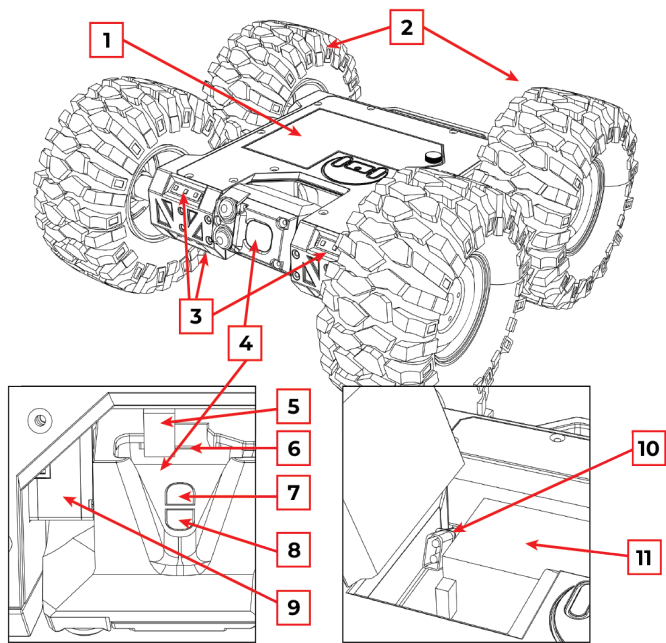
## Important Guidelines:

- **NEVER** operate the video monitor without antennas
- **NEVER** use or leave the crawler turned on when the battery indicator shows 0 bars.
- **NEVER** continue to drive the crawler if one or more wheels is caught and unable to turn.
- **NEVER** leave the crawler turned on while unattended.
- **NEVER** leave the controller or monitor turned on while unattended.
- **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** use or store the device in an environment under 32° or over 120°
- **NEVER** operate the device in wet conditions, or spray the device with any fluid.
- **NEVER** use in an environment that might be susceptible to gas.

## Important Information to remember:

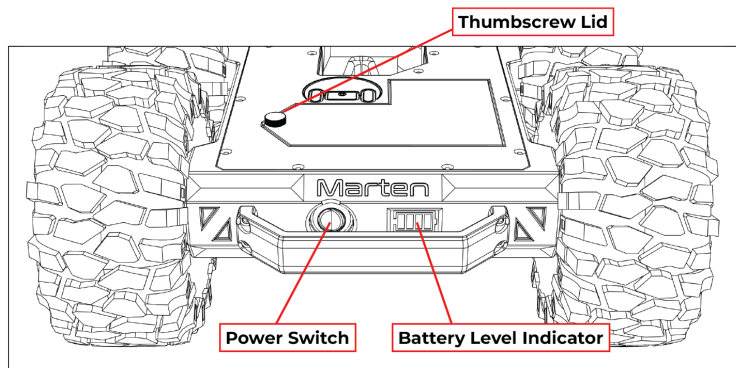
1. Ensure the crawler battery is plugged in.  
*NOTE - do not turn on the crawler*
2. Slide the monitor rail onto the monitor mount.
3. Turn on the transmitter by holding down the power button for 2-3 seconds.
4. Turn on the monitor by holding the power button for 1-2 seconds.
5. Turn on the crawler by flipping the rear power switch.

# Crawler Overview and Diagram



**Legend**

- |                       |                                      |
|-----------------------|--------------------------------------|
| 1. Thumbscrew Lid     | 6. Micro SD Card Slot                |
| 2. All Terrain Tires  | 7. Camera Power/Shutter Button       |
| 3. Front LED Lights   | 8. Camera WiFi Button/Indicator LED  |
| 4. 4K/12MP Camera     | 9. Rotatable Camera Servo            |
| 5. USB C Camera Cable | 10. XT60 Rover Battery Connector     |
|                       | 11. 5200 mAh 11.1v 60C Rover Battery |





# Crawler Controls

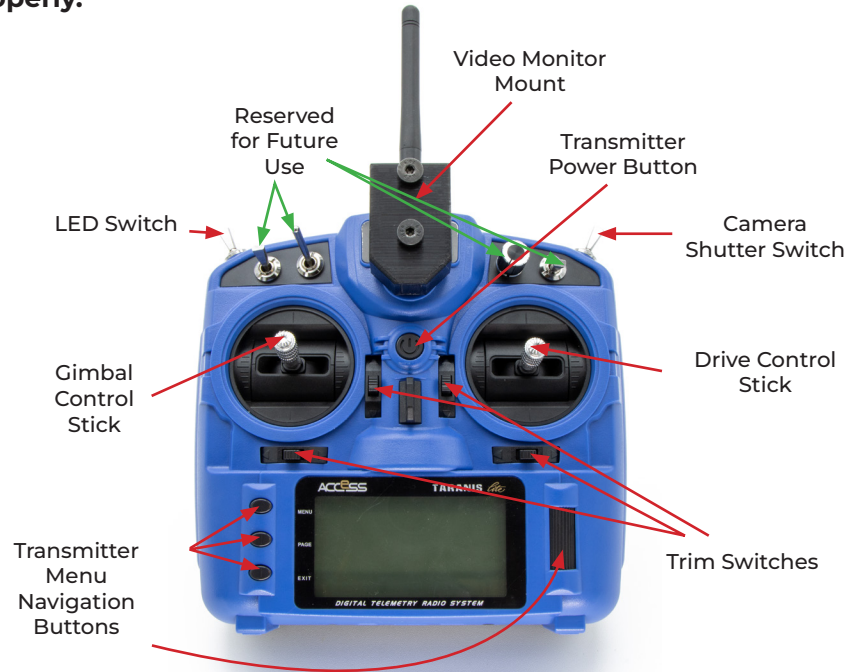
## Quick Start Instructions:

**Note:** Never operate the Marten Crawler if the battery level indicator does not have any bars active. Operation after the indicator reports zero battery will permanently damage the Crawler battery.

1. Turn on the Transmitter by holding the Transmitter Power Switch located in the center until the 4 bars on the screen are full and the Transmitter vibrates (~3 seconds), then release the button.
  - (1.1) Place all switches in the upwards position and move the left Camera Control Stick down to the lowest position and back to the center.
2. Remove the thumbscrew lid from the Marten Crawler and plug in the included Crawler battery using the XT60 connector.
3. Tuck the extra wire into the battery tray space, insert the battery, and replace the thumbscrew lid ensuring the screw is hand-tight.
4. Ensure there is a Micro SD card in the 4K camera.
5. Turn on the Crawler power switch located on the back of the Crawler.
6. You should now be able to control the Crawler.
  - (6.1) The right drive stick on the transmitter is used to move the Crawler.
  - (6.2) The left camera control stick is used to point the camera up and down.
  - (6.3) The top left LED control lever on the transmitter turns the LEDs on and off.
7. Ensure the 4K camera power button is lit up Red to indicate it is powered on. If there is no light, hold the power switch until the camera beeps to turn it on.
  - (7.1) If the red light is blinking, the camera does not detect an SD card.
8. Ensure the Video Monitor antennas are screwed in tight and turn it on by holding the power button until the screen lights up. If the video does not display, press the Search button and wait for it to connect to the Crawler.



If the rotatable camera does not tilt with inputs from the transmitter, turn the Crawler off and start back at Step 1. **The transmitter must be powered on and in the ready state before the Crawler is powered on for the camera gimbal to work properly.**



## Powering Off the Crawler

1. Ensure the Crawler is not recording video as indicated by a red dot in the top right of the video monitor. **Any video still recording when the Crawler is turned off will be entirely lost.**
2. Turn off the Crawler first, then turn off the Video Monitor by holding the power button until the screen goes blank.
3. Now turn off the transmitter by holding the Transmitter Power Switch located in the center until the 4 bars on the screen are gone and the Transmitter vibrates (~3 seconds), then release the button.

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

## Camera Features

***Upon powering on, the Crawler automatically goes into video mode.***

1. To start recording a video, flip the camera shutter switch up and release it quickly.
  - b. To stop recording a video, flip the spring loaded switch up and release it quickly.
  - c. To take a picture, flip the spring loaded switch up and release it two times in a row, quickly.
  - d. If not currently recording a video, the camera will take a picture.
  - e. If you are currently recording, the camera will stop recording and then take a picture.


**Allow 1-2 seconds between all commands so the camera can complete the requested action before receiving more requests.**

# Downloading Photos and Videos

## Method 1

*Using the microSD Card in the Camera (**PREFERRED**):*

1. Turn off the crawler by flipping the rear power switch.
2. Point the camera gimbal down and push the microSD card in to eject it. You may find it easier to unplug the USB-C cable that plugs into the camera first. **REMEMBER TO PLUG IT BACK IN BEFORE USING THE CRAWLER**
3. Once ejected, pull the microSD card out. Use the provided tweezers if necessary.
4. Place the microSD card into a computer, or into your phone with a microSD card adapter.
5. Download the images/video contents located in the folder **.../DCIM**
6. When completed, re-insert the microSD card back into the camera, and plug back in the USB-C cable if you unplugged it.



**For technical support or  
repair inquiries:**

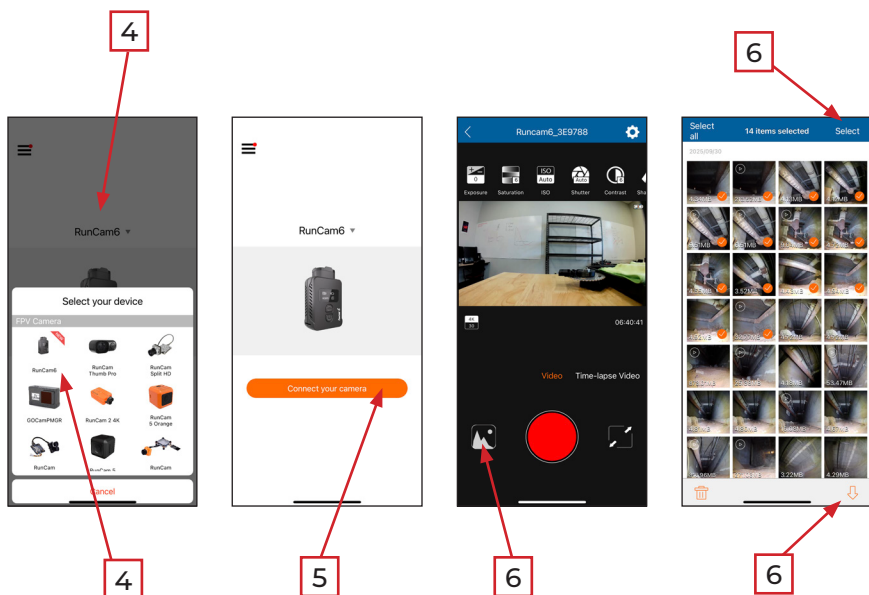
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## Method 2

### Using **Wi-Fi** and the **Runcam App**:

1. Download the **Runcam App** from the IOS App Store or Google Play Store.
2. Turn on the Crawler and press the WiFi button on the orange 4K camera. The button should start blinking Blue.
3. Connect your device to the WiFi network generated by the camera. The WiFi Network will be named **RC6\_4K\_MartenXXXX** where XXXX represents the production number of your Crawler. The password is **1234567890**. Once connected, the Blue LED WiFi indicator on the camera should be solid blue.
4. Go to the Runcam App and click on the drop-down menu to select the **RunCam 6**.
5. Tap **"Connect Your Camera."**
6. Now click on the **Album** button in the bottom left and then the word **Album** on the top right.
7. You can now select images and download them to your device using the **download symbol** in the bottom right







Video  
Monitor

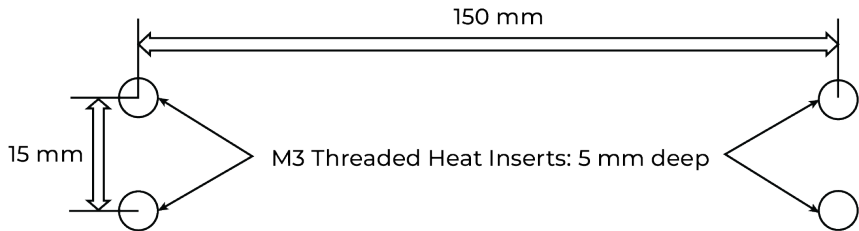
Video Monitor  
Charger

18650 Li-Ion  
Batteries



# 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:



This allows you to create your own add-ons and accessories. Additionally, UplinkRobotics offers add-ons on their store page ([UplinkRoboticsStore.com](http://UplinkRoboticsStore.com)). Examples of these add-ons include a universal  $\frac{1}{4}$  thread mount to equip thermal cameras and GoPros, cup holders, flashlight holders and more.

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# 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 crawler arrived with a blurry video stream.**

**A -** We ship our crawlers with a protective film over the camera lens. The video will be blurry if you don't peel this film off. Please don't forget to peel this film off!

## **Q - The camera won't rotate.**

**A -** The camera won't rotate if the crawler is turned on before the controller. This is a safety feature. Please always turn everything on in the following order : (1) Controller. (2) Monitor. (3) Crawler.

## **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

## **UplinkRobotics LLC Products**

These terms and conditions apply to the use of any products sold by UplinkRobotics LLC, a company registered in the State of Wyoming, USA. By purchasing or using a product from UplinkRobotics LLC, you agree to be bound by these terms and conditions.

### **1. Disclaimer of Liability**

- I. UplinkRobotics LLC products are intended for personal, educational, recreational, or business use only. UplinkRobotics LLC does not warrant that its products are fit for any particular purpose or that they will meet your expectations or requirements. You assume full responsibility for the proper installation, operation, maintenance, and safety of the products.
- II. UplinkRobotics LLC is not liable for any direct, indirect, incidental, consequential, or special damages arising from or related to the use of its products, including but not limited to damages for loss of profits, loss of data, loss of goodwill, or downtime. UplinkRobotics LLC is also not liable for any personal injury, property damage, or environmental harm caused by the use of its products.
- III. You agree to indemnify, defend, and hold harmless UplinkRobotics LLC and its affiliates, officers, directors, employees, agents, and suppliers from and against any and all claims, liabilities, damages, costs, and expenses arising from or related to your use of the products or your violation of these terms and conditions.
- IV. UplinkRobotics LLC is not liable for any damages to its products unless it was clearly a manufacturing defect. You are responsible for inspecting the products upon delivery and notifying UplinkRobotics LLC of any defects in accordance with the applicable product warranty.

- V. UplinkRobotics LLC does not make any representation or warranty regarding the fitness of its products for any specific tasks or functions. UplinkRobotics LLC products are supplemental tools that may assist you in your activities but do not guarantee any results or outcomes. You are solely responsible for determining the suitability and compatibility of the products for your intended use.

## **1. Governing Law and Jurisdiction**

- 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.

## **2. 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.

## **3. 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

**For technical support or  
repair inquiries:**

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**UPLINKROBOTICS**

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