

# **USER MANUAL**

**WIRL<sup>®</sup> LITE**



## **WELCOME TO OUR FAMILY!**

BOOM! Thanks for purchasing Wiral LITE and welcome to our family.

[Please take you brand new Wiral[r] Lite slowly out of the box while reading this imagining Morgan Freemans voice, for a dramatic effect]

There are those of us that like to adventure the unexplored, go out there with a fresh and open mind. Those of us that go out there, with a sense of... curiosity. We believe that this is why you got yourself a Wiral LITE, and we believe that this is why

you will go out there and create videos never seen before. Because we believe you are the future of content creators and that the best tools for content creations should be available to you. Go out, be curious, be creative, be proud and explore the world with your Wiral LIFE[no typo].

Go to the address or scan the QR code below to watch a video tutorial on how to use Wiral LITE safely:



**[www.wiralcam.com/videotutorial](http://www.wiralcam.com/videotutorial)**



## **SAFETY AND DISCLAIMERS**

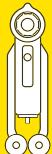
- 1.** Read the complete manual before using the product.
- 2.** The user holding the remote controlling the Wiral LITE is legally the operator of the unit. The operator is responsible for safe usage and consequences of unsafe usage of the unit and the line. Wiral Technologies AS is not responsible for any injury, damage of property or harm caused by usage of Wiral LITE and accessories.
- 3.** Always check and follow all local regulations and laws for operating unmanned vehicle when using Wiral LITE.
- 4.** Do not breach the bounds of privacy. Ask for permission before using Wiral LITE on private property.
- 5.** Do not use the Wiral LITE while under the influence of drugs or alcohol.
- 6.** Keep control of the immediate environment and keep Wiral LITE in line of sight at all times when operating the unit. Wiral LITE requires around X meters of length for momentum to stop. Lack of attention can result in crashing it into the end anchor points or other obstacles.
- 7.** Make sure the unit is powered on and the line is tightened before mounting it on the line. Do not loosen the line while the unit is mounted.
- 8.** Never exceed maximum payload of 1.5kg [3.3 lbs]
- 9.** Do not touch the motor when in use or immediately after use.
- 10.** Stop the unit immediately if it derails.
- 11.** Do not expose Wiral LITE for water. It is not waterproof and cannot be used under water.
- 12.** Do not use Wiral LITE in wind conditions exceeding 10 m/s, or in other severe weather conditions.
- 13.** Do not use in temperatures below -15°C

and above 50°C

- 14.** Do not set up the line where it might interfere with traffic or anything that might crash into the line [e.g. trails, roads]
- 15.** Do not set up the line near heat source, sharp objects [e.g. concert lights, sharp rocks]
- 16.** Do not set up the line on weak or unstable anchors or anchor points that does not have a fixed distance.
- 17.** Always make sure the Rope Reel™ is securely locked when tightening the rope.
- 18.** Never overtighten the Rope Reel™ [Max Torque Rating is X ft/lb X Nm].
- 19.** Do not pull or apply pressure on a line that is tightened.
- 20.** Do not leave the line hanging while not in use
- 21.** Never use 3rd party accessories including 3rd party rope as a replacement for the original parts.
- 22.** Store the kit in room temperature, dry environment and shielded from sunlight. Maximum line strength may decrease over time.
- 23.** Do not use in areas with high levels of interference [e.g radio transmission towers].
- 24.** Only use genuine certified Wiral replacement parts.
- 25.** The appliance is not intended for use by persons [including children] with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety
- 25.** Always keep Wiral LITE, all accessories and packaging out of reach of children and infants.

# WHAT'S IN THE BOX

Please inspect the contents of your shipped package to ensure you have received all that is listed below.



WIRAL<sup>®</sup>LITE



REMOTE CONTROL



QUICK REEL



TIGHTENING STRAP



11.1V LI-POLY BATTERY



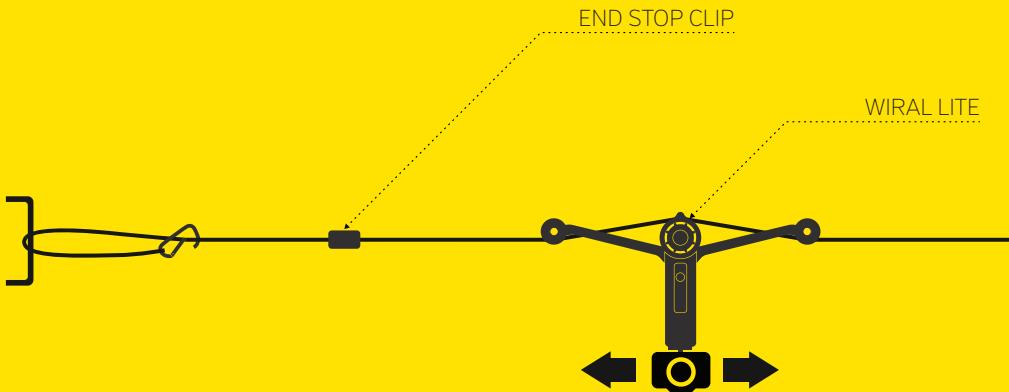
UNIVERSAL BATTERY CHARGER



BALL JOINT



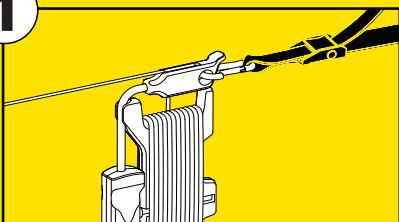
END STOP CLIPS (2X)



# QUICK SETUP

Wiral LITE can easily be set up in less than 3 minutes. To learn how to do it, follow the instructions on the next pages.

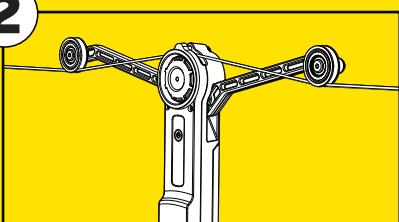
1



## SET UP THE ROPE SYSTEM

READ MORE ON PAGE 8-9

2



## PREPARE AND MOUNT WIRAL LITE

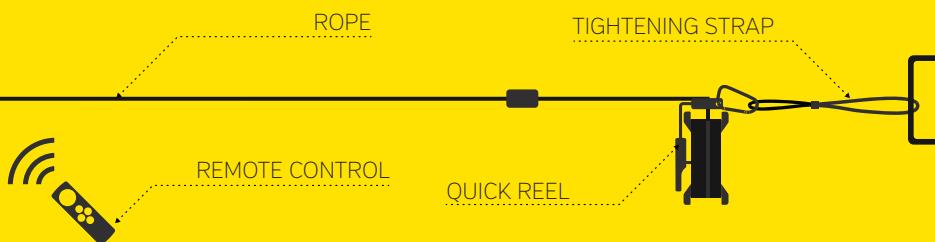
READ MORE ON PAGE 10-11

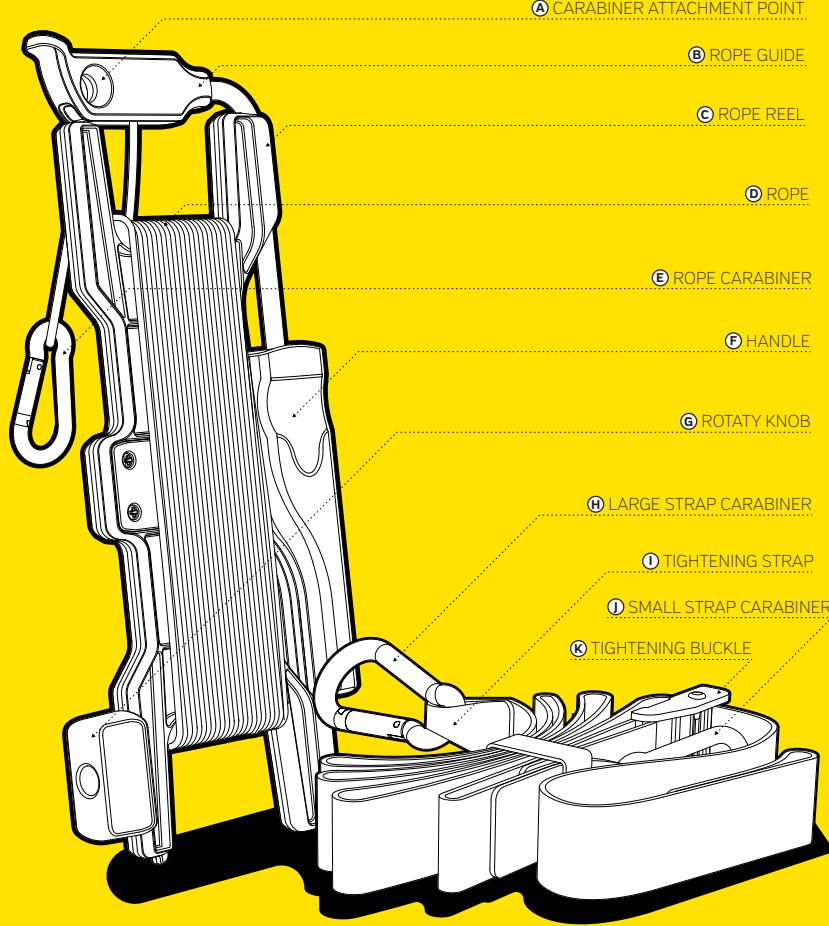
3



## USE THE REMOTE CONTROL

READ MORE ON PAGE 12-15





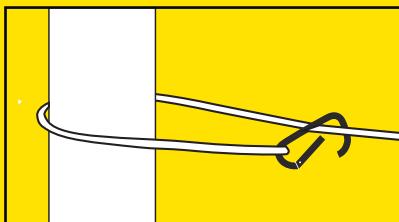
## 1 QUICK REEL™

The Wiral LITE kit comes with the Quick Reel™ that makes it possible to set up the line in just a few minutes. The Quick Reel™ consists of a reel for handling the rope and a tightening strap for connecting and tightening it.



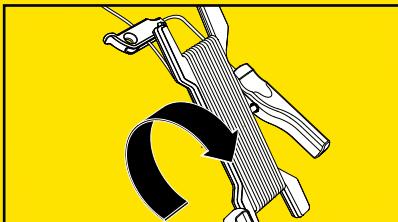
## 01 UNLOCK QUICKREEL™

Press rope guide to unlock QuickReel™ and unwind the rope.



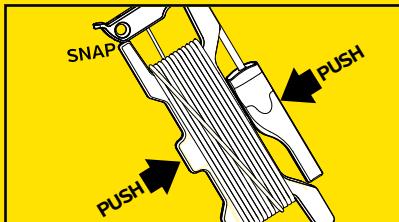
## 02 ATTACH CARABINER

Put rope carabiner around attachment point and attach to the rope. See number marks on the strap.



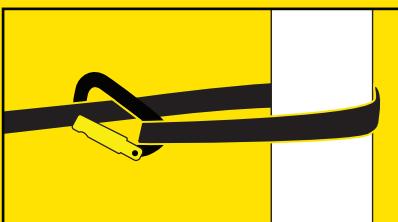
## 03 UNWIND ROPE

Unwind the rope until you are close to the next attachment point.



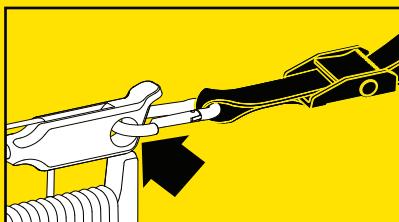
## 04 LOCK QUICKREEL™

Lock the Quickreel™ when you are close to the second attachment point.



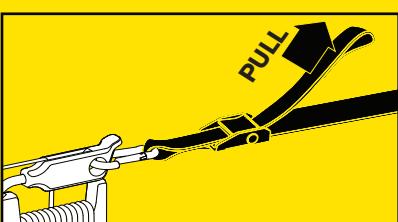
## 05 FASTEN STRAP

Place the tightening strap around the second attachment point, and attach the large strap carabiner.



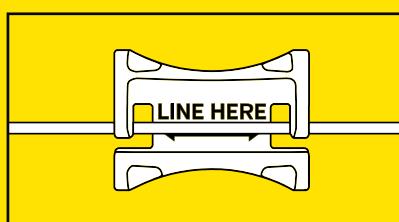
## 06 ATTACH STRAP

Connect the small strap carabiner to the Quick Reel™ rope guide.



## 07 TIGHTEN STRAP

Tighten the system by pulling the end of the strap with a maximum load of 40 kg.

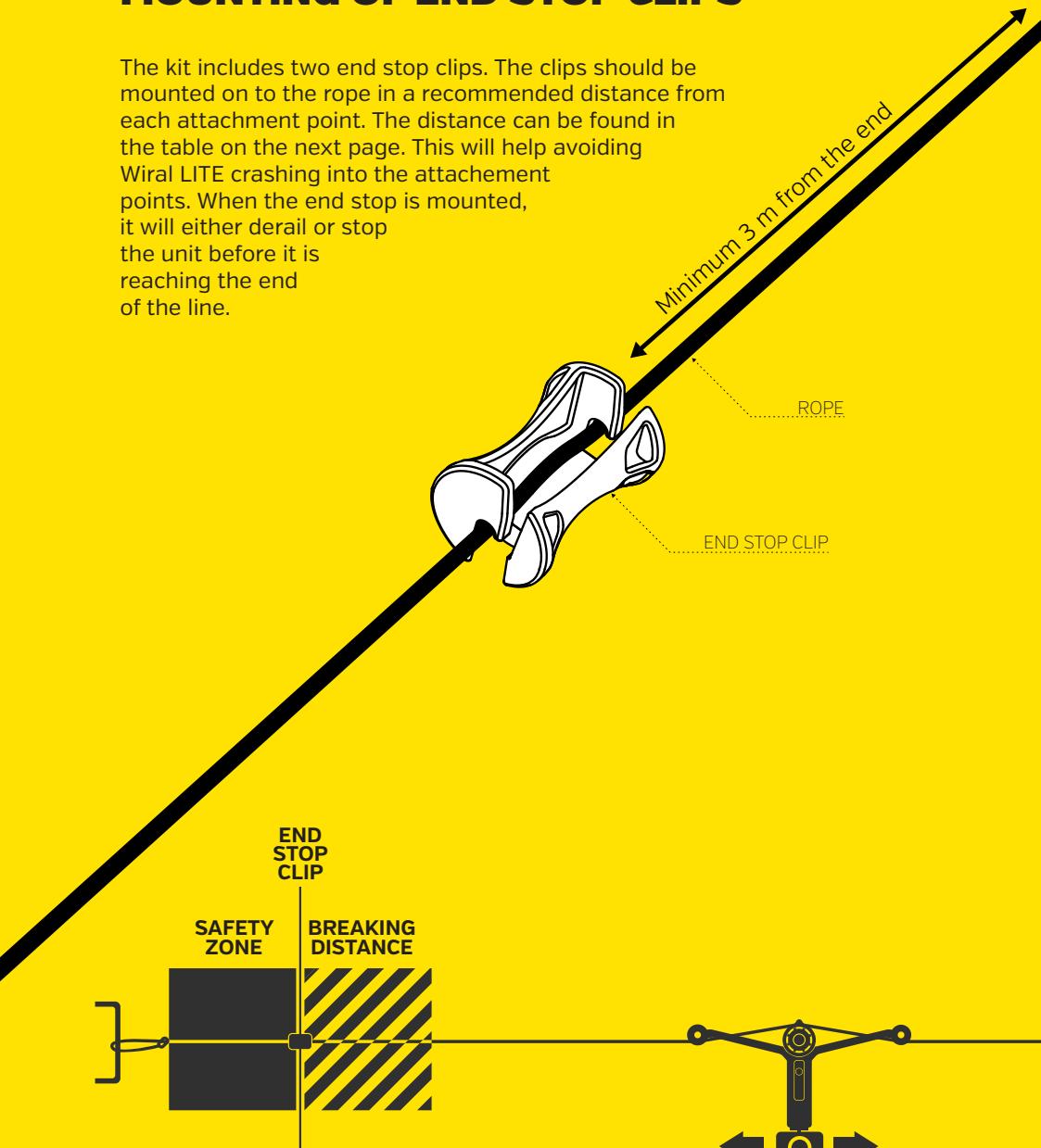


## 08 MOUNT END STOPS

Mount the physical end stops close to the attachment point on each side. See next page.

## MOUNTING OF END STOP CLIPS

The kit includes two end stop clips. The clips should be mounted on to the rope in a recommended distance from each attachment point. The distance can be found in the table on the next page. This will help avoiding Wiral LITE crashing into the attachment points. When the end stop is mounted, it will either derail or stop the unit before it is reaching the end of the line.



# BREAKING DISTANCE AND SAFETY ZONE

## BREAKING DISTANCE

Maximum breaking distance of Wiral LITE will be different based on the weight of the camera that is used.

	0 - 500 g	500 - 1000 g	1000 - 1500 g
<b>Horizontal</b>			
<b>30° Incline</b>			
<b>30° Decline</b>			

*\*The values are estimates, and may vary with environmental conditions.*

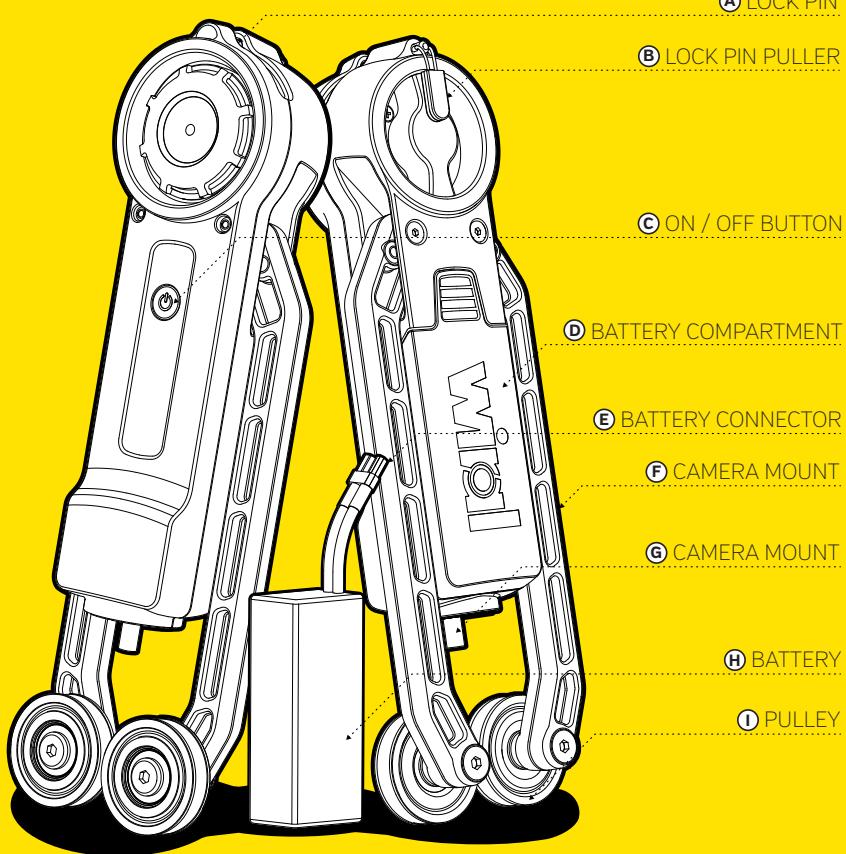
## SAFETY ZONE

The end stop clip should be mounted with a safety zone between it self and the end of the line to avoid Wiral LITE from crashing into the attachment point. The length of the zone will vary with the weight of the camera used.

	0 - 500 g	500 - 1000 g	1000 - 1500 g
<b>Horizontal</b>			
<b>30° Incline</b>			
<b>30° Decline</b>			

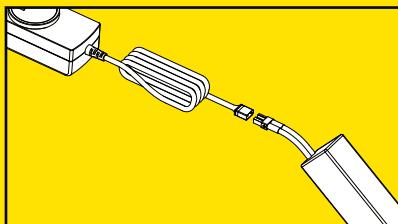
*\*The values are estimates, and may vary with environmental conditions.*





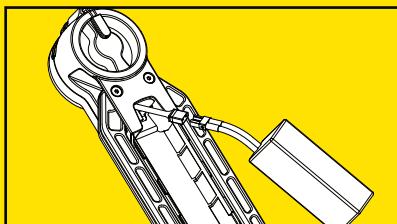
## 2 MAIN UNIT

After mounting the line, it is time to prepare the main unit, including the batteries and the camera that is going to be attached.



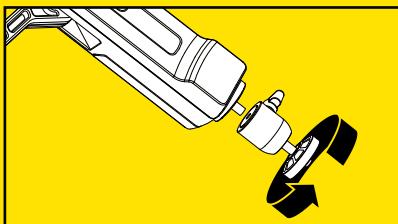
## 01 CHARGE BATTERY

Charge battery using the charger included in the kit. Read more on page 18 - 19.



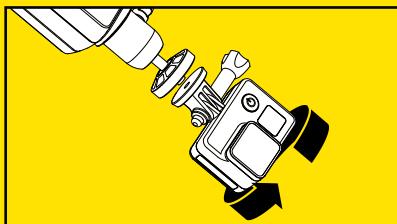
## 02 INSERT BATTERY

Insert battery into Wiral LITE and connect it to the power plug. The unit automatically turns on.



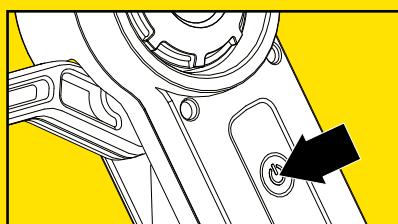
## 03 MOUNT BALL JOINT

Mount the ball joint to be able to point your camera in any angle.



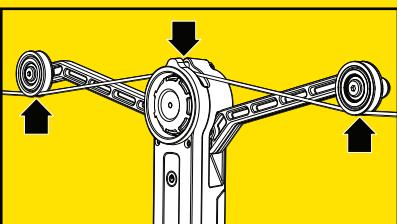
## 04 MOUNT CAMERA

Mount your camera on to the universal mount screw.



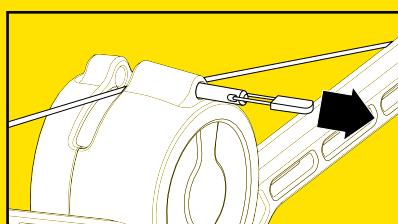
## 05 POWER ON

Power on by pressing the power button. A light in the button indicates if it is on.



## 06 MOUNT ON LINE

Mount the unit on the line by placing the line between the two pulleys and the drive wheel.



## 07 CLOSE LOCK PIN

Secure the unit by opening the lock pin, let the line pop into place. Make sure that the line is place in the groove.



## 08 CONNECT TO REMOTE

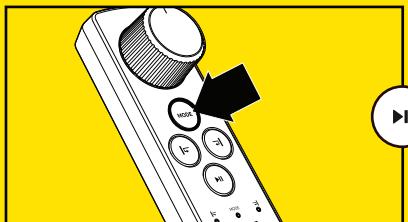
If the remote is switched on, the remote will connect automatically.



## 3 REMOTE CONTROL

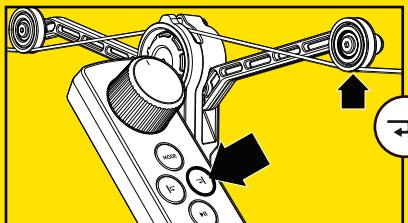
Wiral LITE can be operated by using the remote control included in the kit. The remote control can control speed and acceleration, set digital end stops, and give feedback through six LED lights. Controlling the unit can be done in three different modes:

- 1 **Normal Mode:** Control the speed from 0 to 0.7 m/s directly by turning the speed wheel. [See more on page 16]
- 2 **Sport Mode:** Control the speed from 0 to 9 m/s directly by turning the speed wheel. [See more on page 17]
- 3 **Time lapse Mode:** The unit moves slowly back and forth between the electronic end stops in speeds up to 0.01 m/s. [See more on page 18]



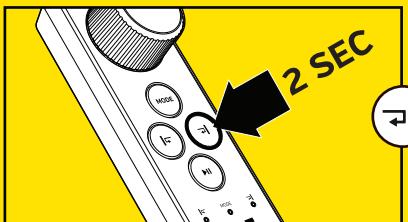
## 01 POWER ON

Press the **Mode Button** to turn on the remote control. The Mode LED will turn on.



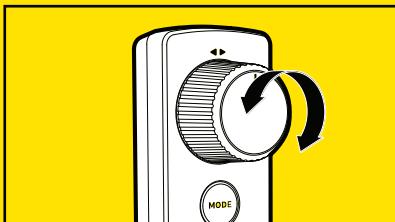
## 03 SET DIGITAL END STOP

Set digital end stops by moving the main unit to the point you want it to automatically stop and press the end stop button. The yellow end stop button will set a digital end stop in the direction of the arm marked with a yellow stripe.



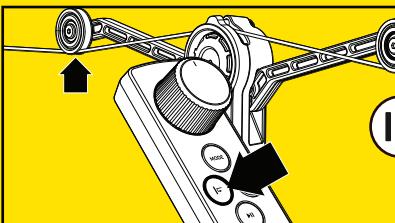
## 05 REMOVE END STOP

Remove end stop by holding the end stop button for 2 seconds. To replace an end stop, just click the end stop where you want to place it.



## 02 CONTROL MOVEMENT

Rotate the **Speed Wheel** to move the main unit. Rotating towards the yellow arrow, will move the main unit in direction of the arm marked with a yellow stipe.



## 04 SET SECOND END

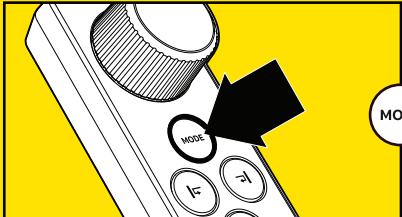
Move the main unit to the second point you want it to automatically stop and press the opposite end stop button. The main unit will now only move in between these points. **Be aware** that the end stops might drift. They should be reset after emergency stops.



## 06 END STOPS NOT SET

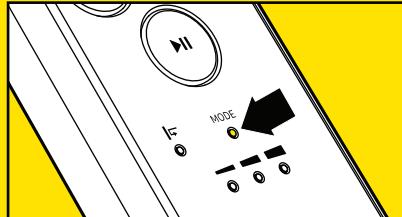
Setting digital end stops is highly recommended. In automatic mode the indicators will blink if the end stops are not set.

# CHANGE SPEED MODE



## 01 CHANGE MODE

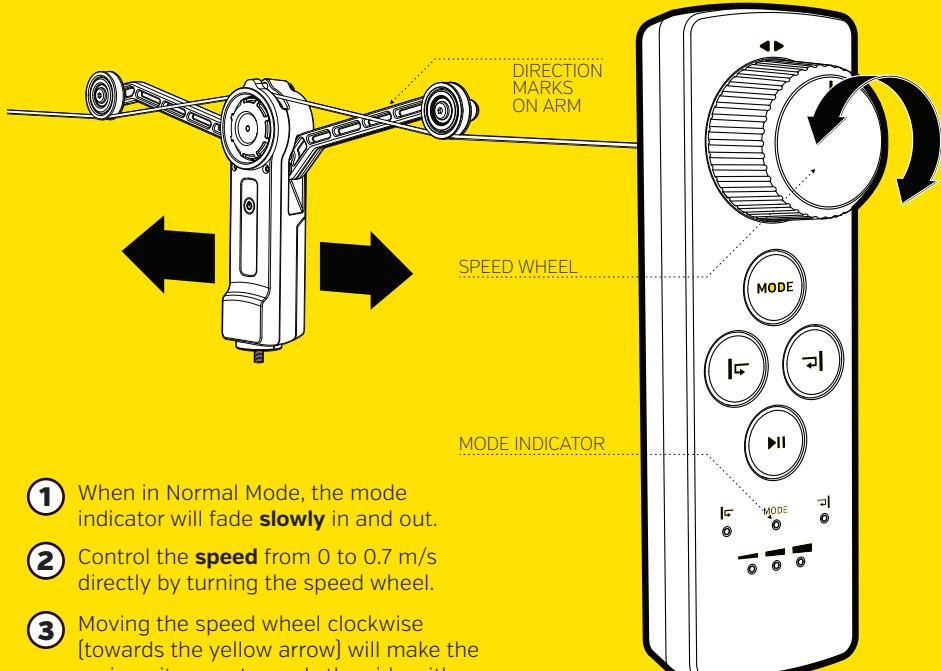
Remote is automatically set to normal mode when turned on. Change modes by pressing the mode button.



## 02 MODE INDICATION

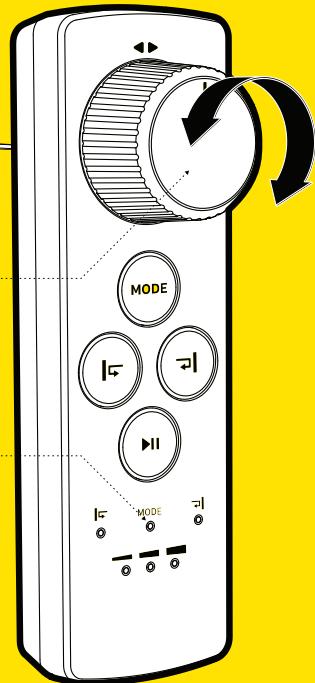
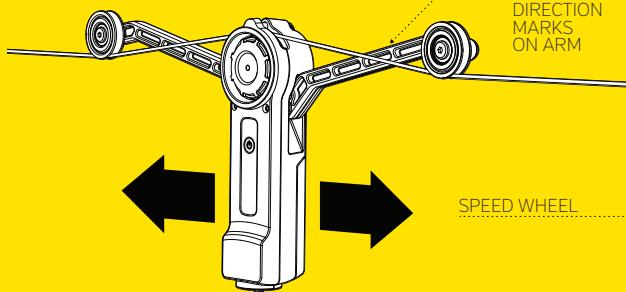
**Normal Mode:** Mode indicator LED is blinking slowly.  
**Sport Mode:** Mode indicator LED is blinking fast.  
**Time Lapse Mode:** Mode indicator LED is continuously lit.

# NORMAL MODE



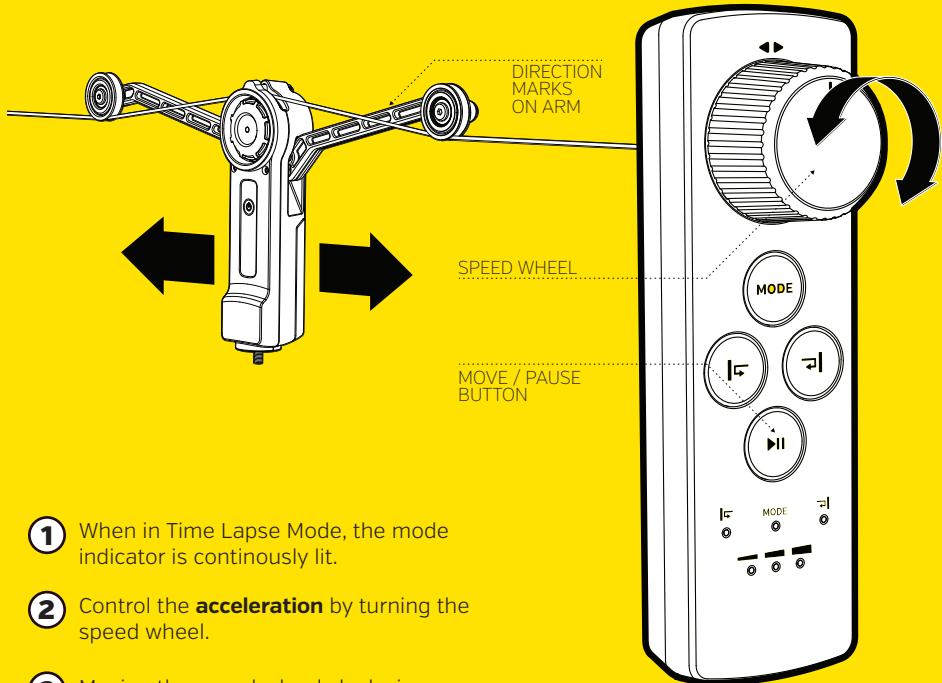
- 1 When in Normal Mode, the mode indicator will fade **slowly** in and out.
- 2 Control the **speed** from 0 to 0.7 m/s directly by turning the speed wheel.
- 3 Moving the speed wheel clockwise (towards the yellow arrow) will make the main unit move towards the side with yellow print.
- 4 When the speed wheel is released, the unit will stop.

## SPORT MODE



- 1 When in Sport Mode, the mode indicator will fade **quickly** in and out.
- 2 Control the **speed** from 0 to 9 m/s directly by turning the speed wheel.
- 3 Moving the speed wheel clockwise [towards the yellow marks] will make the unit move towards the side with yellow print.
- 4 When the speed wheel is released, the unit will stop.

## TIME LAPSE MODE



- 1 When in Time Lapse Mode, the mode indicator is continuously lit.
- 2 Control the **acceleration** by turning the speed wheel.
- 3 Moving the speed wheel clockwise (towards the yellow marks) will accelerate the unit towards the side with yellow print.
- 4 When releasing the wheel, the unit will continue in the same speed.
- 5 Pause the unit by pressing the move / pause button on the remote. The speed can be adjusted both in paused and moving state.
- 6 Unit restarts when play/pause button is pressed for the second time
- 7 To reset the speed to zero, click the play/pause button twice.

# CHECK BATTERY STATUS



To check the battery status of the main unit, hold the play / pause button for 2 seconds. The status will be displayed in the LED below.

## BATTERY LEVELS



# LED STATES

## NORMAL MODE

Mode indicator is fading slowly in and out.



## SPORT MODE

Mode indicator is fading quickly in and out.



## TIME LAPSE MODE

Mode indicator is continuously lit.



## LOW SPEED (BLINKING FASTER AND FASTER)

0 - 16 meter per hour in Time Lapse Mode



## MEDIUM SPEED (BLINKING FASTER AND FASTER)

16 - 32 meter per hour in Time Lapse Mode



## HIGH SPEED (BLINKING FASTER AND FASTER)

32 - 48 meter per hour in Time Lapse Mode



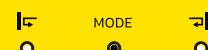
## END STOP 1 AND 2 SET

When end stop indicators are lit, digital end stops are set



## END STOP HIT

Pulsating LEDs when the unit is place on a set end stop



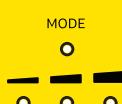
## END STOP NOT SET

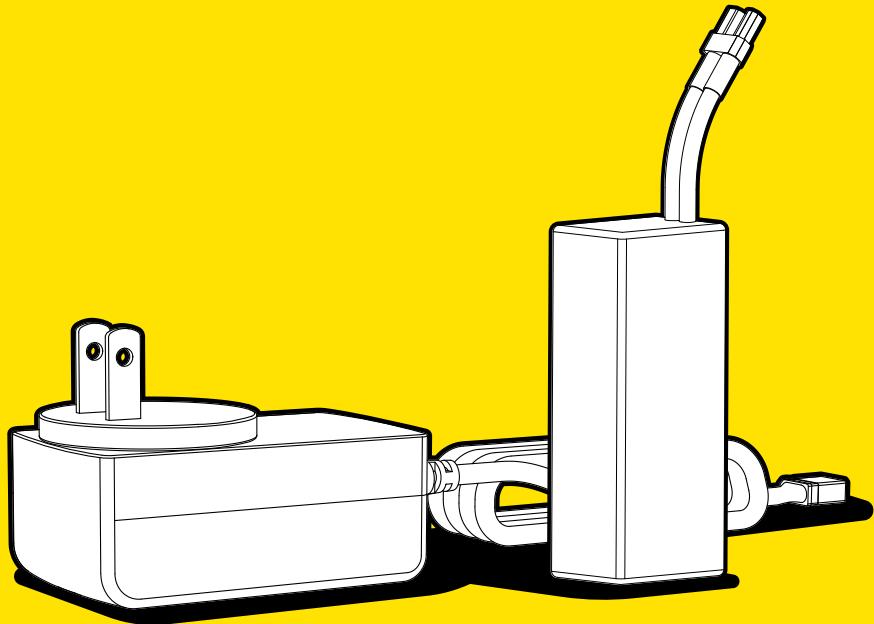
If digital end stops are not set in Time Lapse Mode, LEDs will blink



## NOT CONNECTED

If the remote is not connected to the main unit, all six LEDs will blink at the same time.





## 4

# BATTERY/CHARGER

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Wiral LITE is using a 11.1V rechargeable LiPo battery, that can be recharged by using the charger included in the kit. Be sure to read the instructions for use on the next page before using both the battery and the charger.

## SAFETY AND DISCLAIMERS

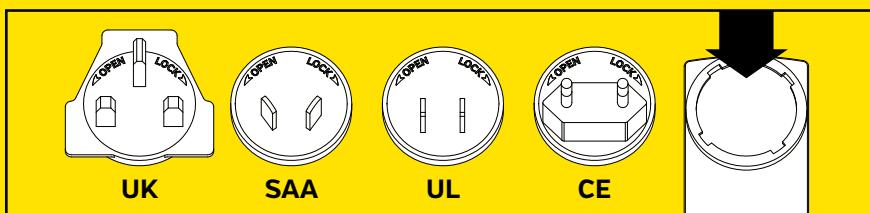
1. Read this whole document [Wiral LITE User Manual] before using or charging the battery.
2. Never puncture, deform, disassemble, shock or short circuit the battery.
3. Stop using or charging the battery if it swells up, the temperature exceeds 60°C, it leaks or anything abnormal happens.
4. Keep battery out of reach of children.
5. Never use a wet battery.
6. Keep away from heat and fire.
7. Only use the original Wiral LITE charger.
8. The user takes the full responsibility of using this battery.

## CAUTION

Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instruction.

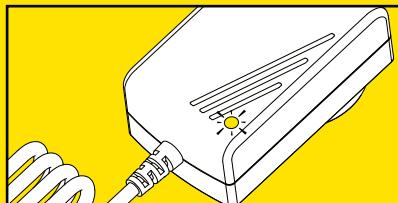
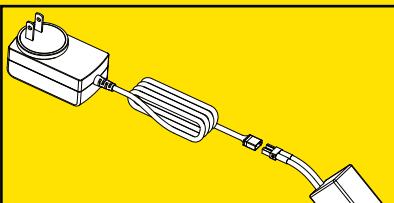
## SPECIFICATIONS

Manufacturer:	ABP Group Ltd.
Input:	110-240 V
Output:	0.5 A max 12.6 V 1000 mA



## 01 SELECT AND MOUNT PLUG

The charger comes with four different interchangeable plugs. Select the correct one for your area, and insert it into the charger.



## 02 CONNECT BATTERY

Connect the battery to the charger, and plug the charger into a power outlet.

## 03 WAIT FOR GREEN LIGHT

When the battery is fully charged, the LED indicator will change from red to green. The battery is now ready to use.

## **OVERHEAT PROTECTION**

When running Wiral LITE with high loads and in high speed for a longer period, the main unit might get warm. To protect the product from possible damages, it will automatically slow down the speed for a short period to cool down. If the problem continues, the unit will stop.

## **AVOID ROPE WEAR**

When using Wiral LITE over time, the rope will wear and tear. To avoid too much damage on the rope, there are some precautions that can be taken.

1. Do not use steeper lines than 30 degrees.
2. If hitting obstacles, the support pulleys might derail. Be sure to place them in the correct position before you continue.
3. When mounting Wiral LITE, be sure that the line is placed in the drive wheel groove. If not, the line will be damaged.

## **WIRAL LITE FACTORY RESET**

If you are experiencing connection or control errors while using Wiral LITE, a solution could be to do a factory reset to recalibrate the unit. The reset is a quick and simple operation:

1. Press and hold the on / off button on the main unit while connecting the battery.
2. If done correctly, the motor should start running slowly to calibrate the unit.
3. When the motor stops, the unit is ready to use.

## **USEFUL LINKS**

If you need more information about Wiral and Wiral LITE, check out

**[www.wiralcam.com](http://www.wiralcam.com)**

To find all information on using Wiral LITE, such as FAQ, tutorials and support information, go to

**[www.wiralcam.com/support](http://www.wiralcam.com/support)**

To read more about warranties, and general legal information for Wiral, visit

**[www.wiralcam.com/legal](http://www.wiralcam.com/legal)**



**[www.wiralcam.com](http://www.wiralcam.com)**

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