Arable Mark 3
Quick Start Guide

| In the box:	
	• Mark 3 Device
	• Solar Panel
	• Solar Panel Knob
	• Cellular Antenna
	• BLE Antenna
	• Power Charging Cable (USB to M8 Connector)
	• 4" (10cm) Bird Spikes [Qty: 5]
	• 2.75" (7cm) Bird Spikes [Qty: 21]
	• 8" (20cm) Zip Ties [Qty: 5]

Step 1: Pre-deployment
Connect your device to a charger

Charge until your device's lightning bolt icon turns **white** by plugging your charging cord into the provided USB-C converter or directly into a 10W+ wall charger (not included). The lightning bolt icon will be **orange** while charging. Reattach the charging cap prior to deployment.

Note:
Using 10W+ charger, charging to full battery can take up to 7 hours from empty. If using a 5W charger, charging to full battery can take up to 14 hours.

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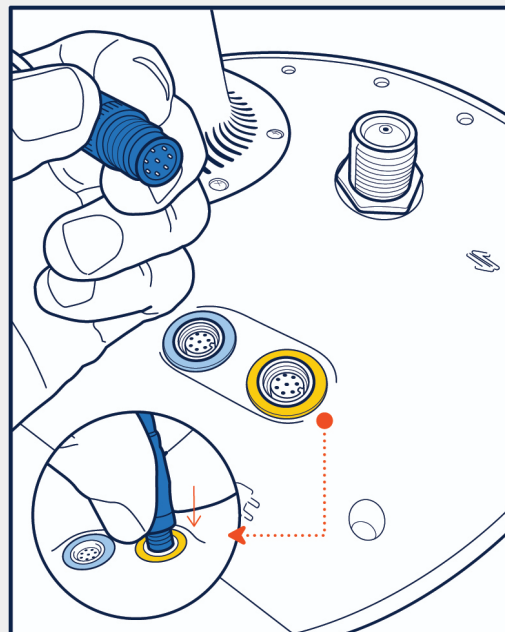
Step 2:
Ensure the solar panel is attached to the Mark 3

First, attach the cable from the panel to the Mark 3 cable. You will hear a snap. Insert the connected cables in the solar panel cavity. From top→down, slide the groove of the panel down the Mark 3 casing. There will be a soft click.

If the panel is properly connected and in sufficient sunlight, you will see a **orange light** at the lightning bolt icon. Ensure that the provided knob is screwed into the side to secure the solar panel in place.

**Do not proceed until you have successfully attached the solar panel to the Mark 3.**

Note:

For maximum charging, face the solar panel towards the equator. The panel may be faced up to 90 degrees away from the equator if needed.
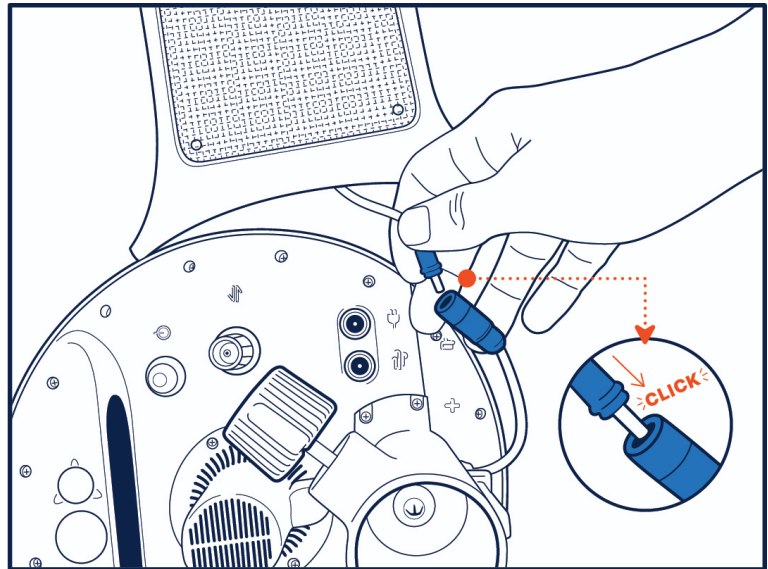
Step 3:
Attach antennas

Attach the Cellular and Bluetooth antennas to their respective ports on the underside of the Mark 3, matching the icons on the antennas to the icons on the Mark.
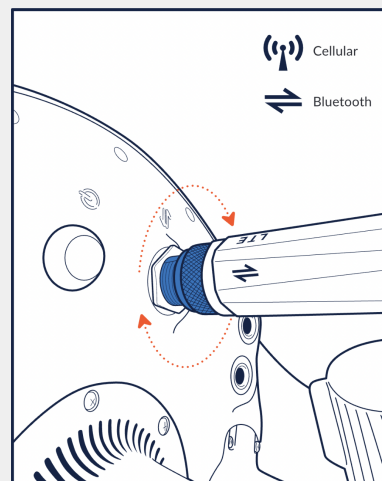
Step 4:
Deploy your Mark 3

Note: It may take 5 to 10 minutes for lights to stop flashing during the deployment sequence. The Additional Sensor light will stay amber if there is no connection.

Hold the power button for **2 seconds** to turn ON the device and sync with the Arable system. Each time you do this you will create a "deployment". The deployment sequence will begin with flashing blue lights that will turn solid green when complete. For more scenarios, see the Deployment Outcomes section below.

Step 5:
Attach bird spikes

Insert the bird spikes into the holes around the perimeter of the top of the Mark. The four longer spikes with the orange rubber ends are to be placed at the 12, 3, 6, and 9 o'clock positions. Firmly push in.
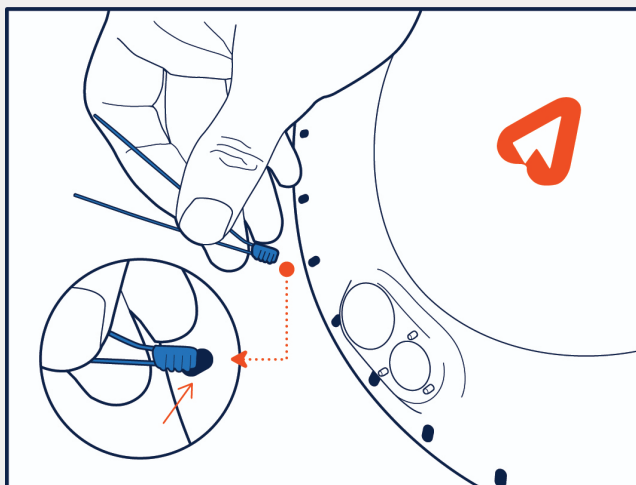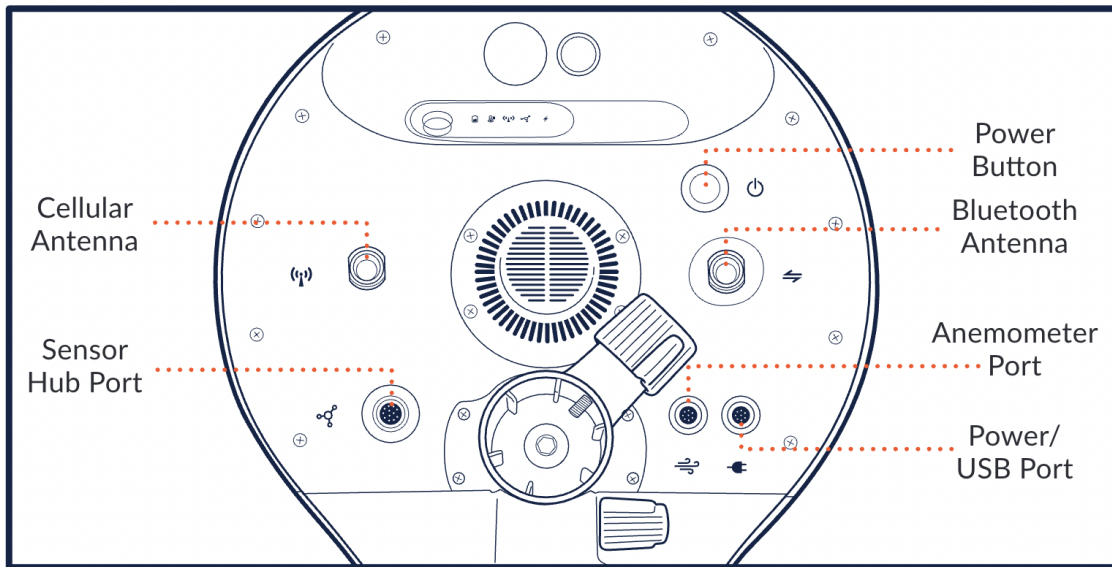

Step 6:
View your data in the Arable web or mobile application

Note: It will take up to an hour to populate the initial measured data in the apps and the first battery percentage may not show 100% even if fully charged.

Use your login credentials to view data from your Mark 3(s) on app.arable.com. New deployments will appear in the "Unassigned Device" list of the Map page in Arable Web. In Arable Mobile a red dot will show up in the "Weather List" menu icon. Find your device by device ID and deployment timestamp in these lists and then name your deployment/site.

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Deployment Outcomes

Successful deployment	Once the activation process is complete, the status of each light icon will remain steady for 10 seconds before every light, except for the lightning bolt, goes out. A successful deployment will display green lights.
Failed deployment	The light icons will flash red for 30 seconds if a deployment has failed. Any failure is represented by its icon flashing red: **Battery too low to connect** → Take inside to charge. **Sensor Failure** → Contact Arable **Connectivity to Server** → Move location or contact Arable. **Additional Sensors connected but no communication** → Contact Arable

Actions you can take	**Status Check** → Quick tap and release of the Power button.
	Undeployed State:
	    Battery light flashes green → Ready to redeploy
	    Battery light flashes red → Recharge
	Deployed State:
	    Steady green lights → Operating normally
	    Battery light red → Recharge
	    Sensors light red → Sensor failed / Contact Arable
	    Connectivity light red → Bad Connection / Move Location
	    Additional Sensor light amber → No sensor connected
	    Additional Sensor light green → 1 sensor connected
	    Additional Sensor light purple → 2+ sensors connected
	To Deploy → 2 second press, hold & release power button.
	    Blinking blue lights turn green→ Successful deployment
	    Blinking blue lights turn red → Failed deployment
	            **The connectivity icon may blink for up to 5 to 10 minutes while the Mark establishes a connection with the cell tower.
	    Note: The Mark 3 must be deployed in outdoor/open-air locations to establish a GPS location and show up in the apps.
	To Undeploy → 2 second press, hold & release power button.
	    Blinking amber lights turn off when complete
	    Note: Undeployment can take up to 10 minutes if low/no network coverage
	Hard Reset → 15 second hold and release of the power button.
	    Battery light flashes amber and turns off when rebooting
	    Perform Status Check to confirm new deployment

Lightning bolt LED	Orange while charging and white when fully charged.
Orientation	Your Mark 3 should be deployed 3-4 feet above the maximum expected height of your crop canopy. The "A" in the Arable logo should point +/-90° towards the equator.

Sensor Guide
Meaning of Sensors
(from Left to Right)

Battery
> Green → Sufficient power to deploy
> Red → Battery is too low to connect

Internal Sensor
> Green→ Sensors are all in working condition
> Red → One or more sensors have failed

Connectivity → Device has connected to the Arable system.

*Additional Sensors→ Status of additional attached sensors.
> Amber→ No sensors attached
> Green → One sensor attached
> Purple → Two or more sensors attached

Lightning Bolt → Charging status
> Orange→ Charging
> White → Fully charged

*It takes 10-15 seconds for the light to change color after connecting any additional sensor.

Left to right:
Battery
Internal Sensor
Connectivity
Additional Sensors
Charging Status

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Accessory Installation Instructions

Mark 3 Anemometer

In the box:
Mark 3 Anemometer
(preassembled)

Step 1: Twist and lock Mark 3 to the Anemometer base
Using the equipment provided, twist the Mark 3 so that the anemometer arm aligns 90° to the Mark 3 solar panel.

Step 2: Connect Anemometer cable to Mark 3
After attaching your Mark 3, connect the blue M8 cable from the anemometer to the blue port on Mark 3. Remember to save the black cap for off-season storage.

Step 3: Install Mark 3 assembly to the pole
Tighten the top knob and mount the Mark 3 to the top of the telescoping pole. Turn the Mark 3 in a position that is facing the equator +/- 90°. Tighten the bottom knob.

Step 4: Perform status check
Quick tap (1 second) & release the power button.
Additional Sensor light amber → No sensor connected
Additional Sensor light green → 1 sensor connected
Additional Sensor light purple → 2+ sensors connected

Mark 3 Hub Adapter

In the box:
Mark 3 Hub Adapter
Pole clip (bolt & lock nut)
8" (20cm) zip ties

Step 1: Connect Hub Adapter
Connect the orange M12 cable to the orange port on the Mark 3. Remember to save the black cap for off-season storage.

Step 2: Mount Hub Adapter & cable to the pole
Use the pole clip (or zip ties) to attach the Hub Adapter to the pole. Fasten the cable to the pole using the additional zip ties.

Step 3: Attach external sensor cables
Soil Moisture (SDI-12 connector)
Pressure Switch (analog connector)
I/O expansion (RS232/485 connector)

Step 4: Perform status check
Quick tap (1 second) & release the power button.
Additional Sensor light amber → No sensor connected
Additional Sensor light green → 1 sensor connected
Additional Sensor light purple → 2+ sensors connected

FCC Statement

Interference Statement:
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator & your body.

Industry Canada Statement
CAN ICES3 (B)/NMB3 (B)

This device complies with ISED's license-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d' ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Radiation Exposure Statement:
This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with greater than 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:
Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à plus de 20 cm entre le radiateur et votre corps.

CE Statement
This device complies with Directive 2014/53/EU and UK Radio Equipment Regulations 2017 SI 2017/1206. issued by the Commission of the European Community.

Declaration of Conformity
Hereby, Arable Labs Inc. declares that the radio equipment type Arable Mark 3 is in compliance with Directive 2014/53/EU and UK Radio Equipment Regulations 2017 SI 2017/1206.

The full text of the EU declaration of conformity is available at the following internet address: arable.com

The frequency and maximum transmitted power in the EU are listed as below.
- 2402~2480MHz: 9.36 dBm

This equipment should be installed and operated with a minimum distance of 24 cm between the radiator and your body.

Supported bands
- LTE-M: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/B85
- NB-IoT: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B28/B66/B71/B85
- 2G: 850/900/1800/1900 MHz

Detachable Antenna Usage
This radio transmitter [IC: 29735-MARK3] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Le présent émetteur radio [IC: 29735-MARK3] a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'émetteur.

Manufacturer	Model	Antenna Type	Max Gain (dBi)	Impedance (Ω)
Grand-Tek	103DG00000160	Dipole	2.4	50 ohm
Grand-Tek	1036G00000970	Dipole	3.2	50 ohm

Anatel Statement
Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados – Para maiores informações, consulte o site da Anatel – https://www.gov.br/anatel/pt-br/
Incorpora produto homologado pela Anatel sob número 05174-21-07968

International Mobile Equipment Identity (IMEI) Statement
The unique IMEI number assigned to the Mark 3 can be found on the product label.