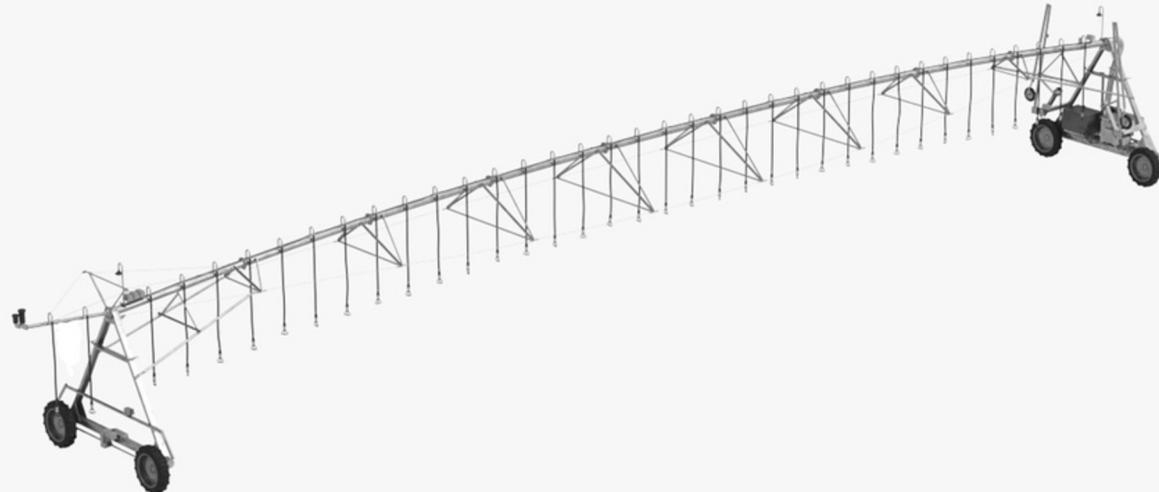


# FarmHQ LINEAR INSTALLATION



[www.farmhq.com](http://www.farmhq.com)

August 2024 • Version 1.0

# TC-3 LINEAR INSTALLATION



**⚠️ WARNING ⚠️** -DO NOT INSTALL WHILE YOUR EQUIPMENT IS RUNNING. FAILURE TO COMPLY MAY CAUSE INJURY OR DEATH.

## TOOLS YOU WILL NEED

- CRESCENT WRENCH
- CRIMPERS
- METRIC OPEN END  
WRENCHES
- TEFLON TAPE
- SHARPIE OR PAINT PEN

## CONTACT US AT

- [support@farmhq.com](mailto:support@farmhq.com)
- +1 360-818-2632

## FARMHQ APP

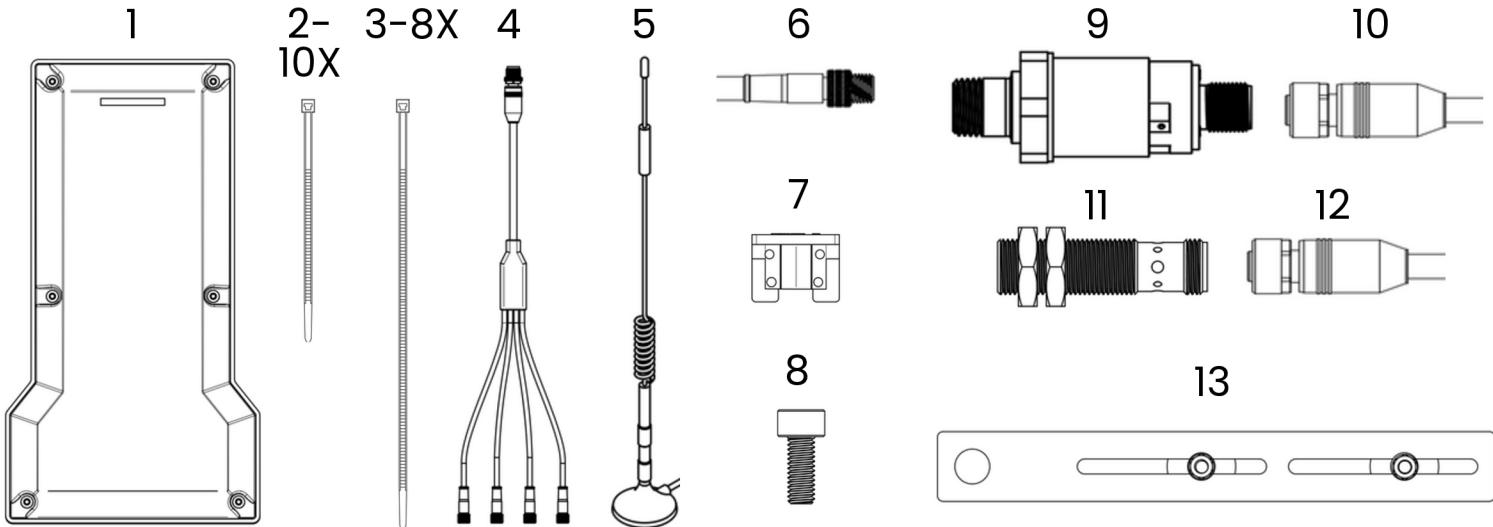


## SUPPORT

- IF YOU HAVE ANY TROUBLE DURING INSTALL  
REFERENCE THE USER MANUAL AT  
**[FarmHQ.com/support](https://FarmHQ.com/support)**



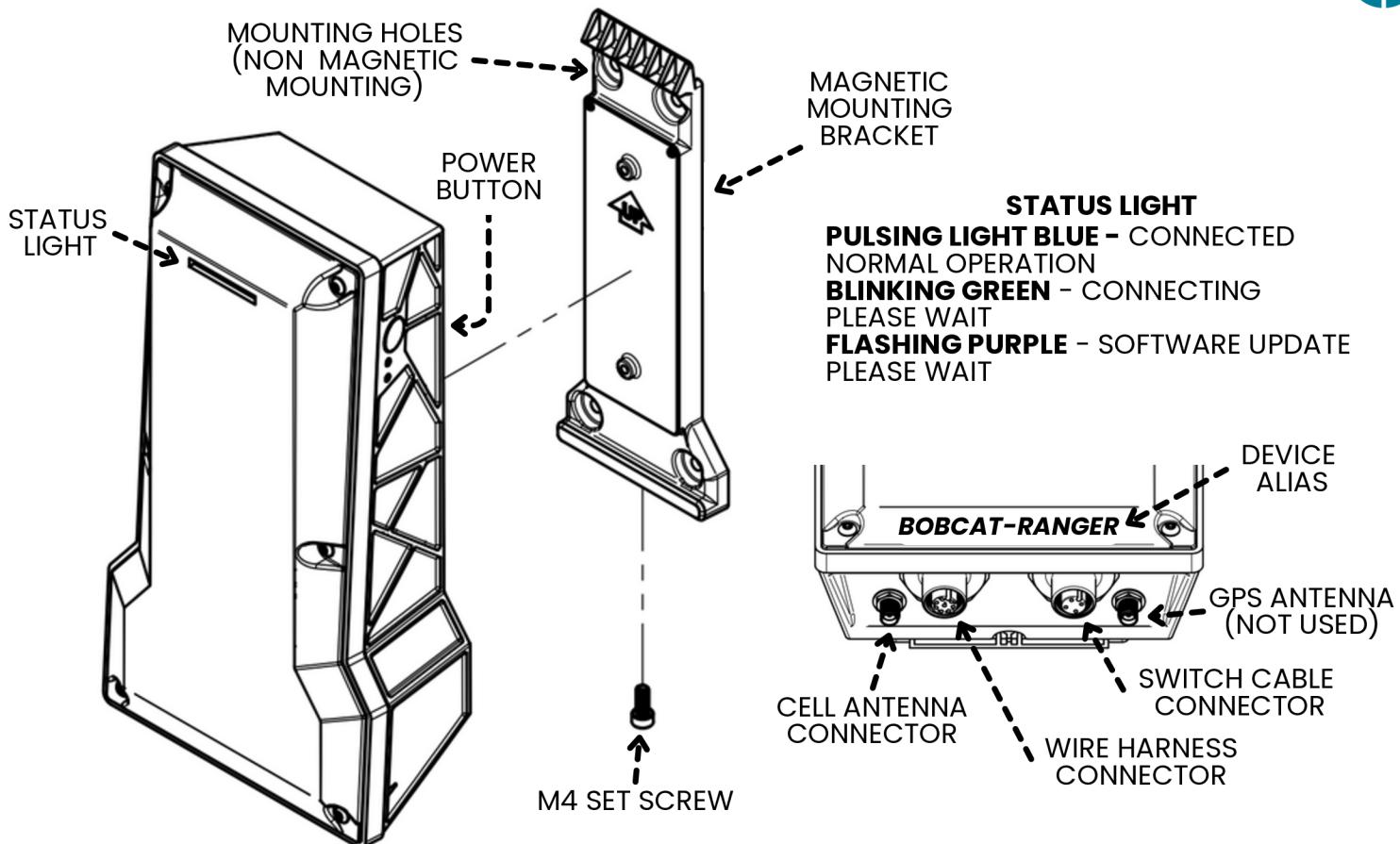
# INSTALLATION HARDWARE



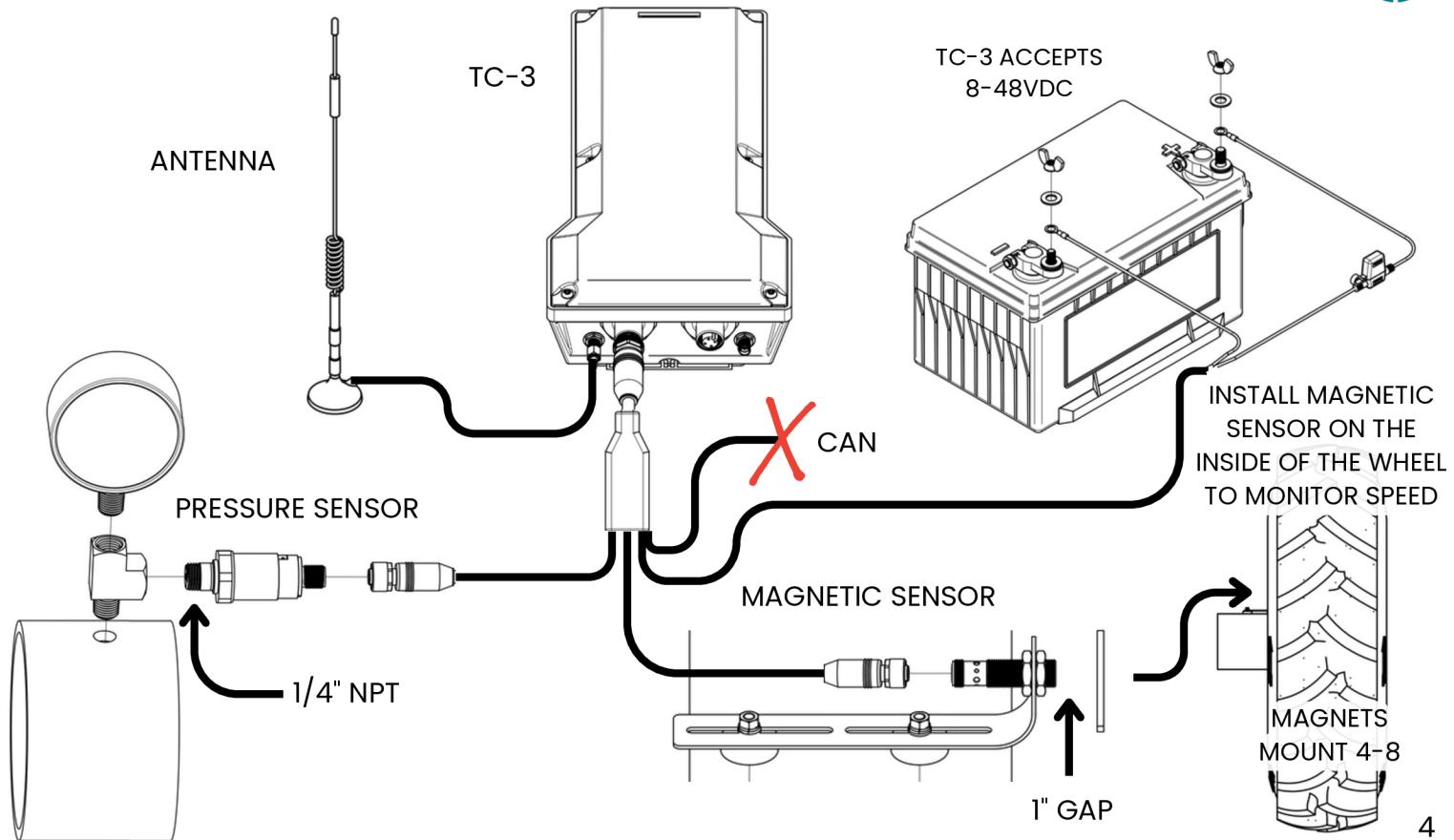
- 1. TC-3
- 2. 6" CABLE TIES
- 3. 11" CABLE TIES
- 4. TC-3 WIRE HARNESS
- 5. ANTENNA
- 6. 3M POWER CABLE
- 7. SPARE 5A BLADE FUSE
- 8. M4 SET SCREW

- 9. PRESSURE SENSOR
- 10. PRESSURE SENSOR CABLE (15')
- 11. MAGNETIC SENSOR
- 12. MAGNETIC SENSOR CABLE (15')
- 13. MAGNETIC SENSOR BRACKET
- 14. SENSOR MAGNETS
- 15. 1/4" NPT BRASS STREET TEE

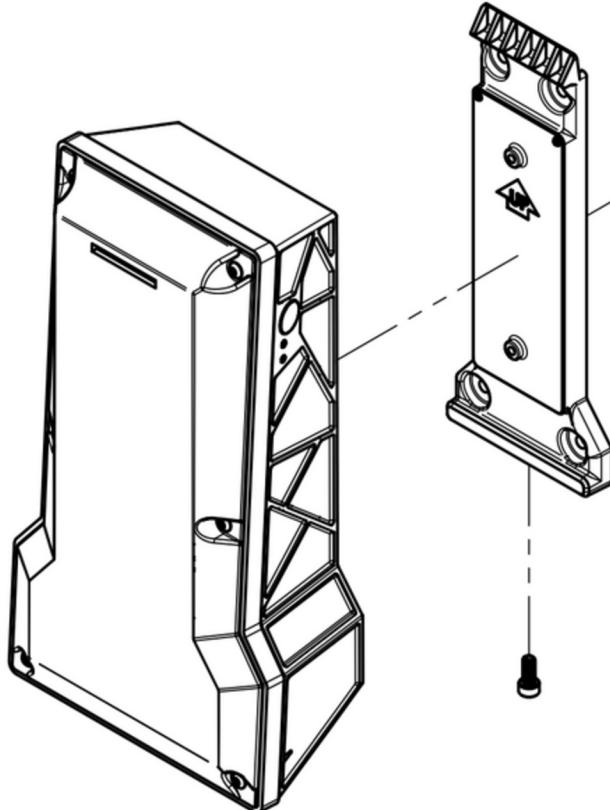
# DEVICE OVERVIEW



# INSTALLATION OVERVIEW



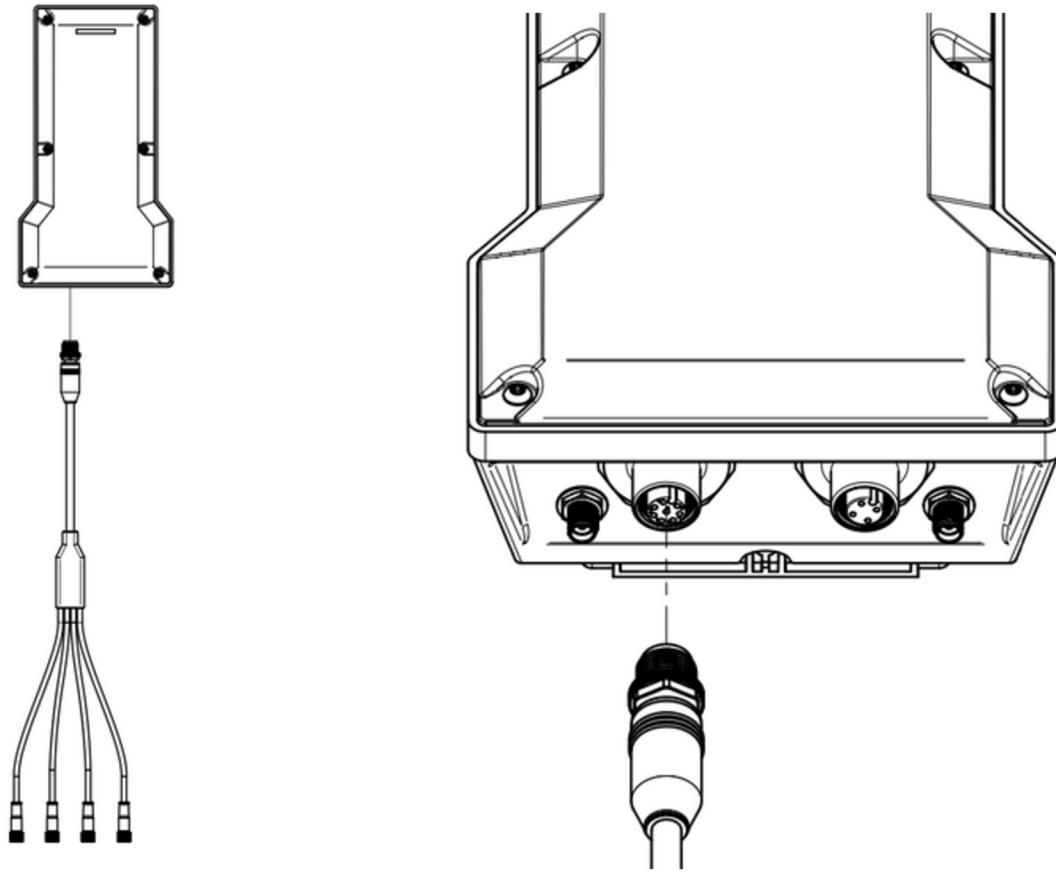
# 1. MOUNT YOUR DEVICE



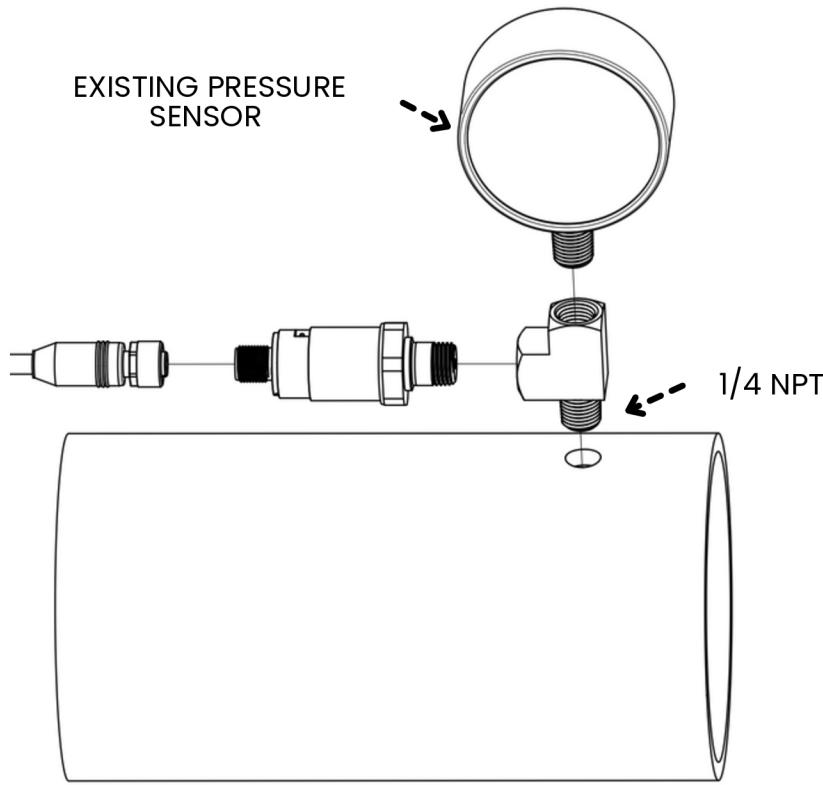
- MOUNT YOUR DEVICE TO ANY STEEL SURFACE USING THE MAGNETS ON THE BACK.
- MINIMIZE VIBRATION OF THE DEVICE
- USE THE MOUNTING HOLES TO MOUNT THE BRACKET IF THE MAGNETS DO NOT WORK TO SECURE THE DEVICE.



## 2. CONNECT WIRE HARNESS



### 3. CONNECT PRESSURE SENSOR

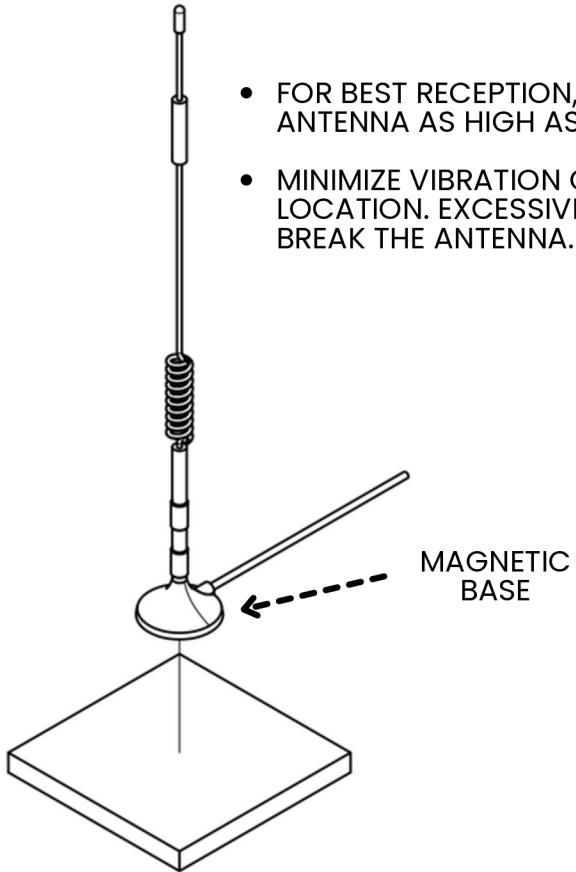


CONNECT TO  
SENSOR 2

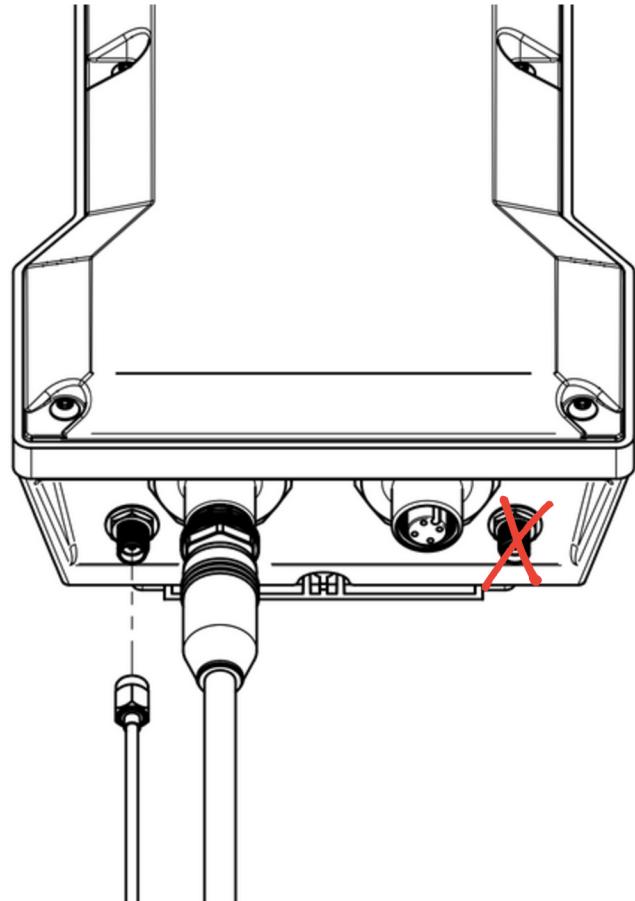


PRESSURE SENSOR CABLE AND  
MAGNETIC SENSOR CABLE ARE  
INTERCHANGEABLE

# 4. CONNECT THE ANTENNA



- FOR BEST RECEPTION, ATTACH ANTENNA AS HIGH AS POSSIBLE.
- MINIMIZE VIBRATION OF MOUNTING LOCATION. EXCESSIVE VIBRATION WILL BREAK THE ANTENNA.

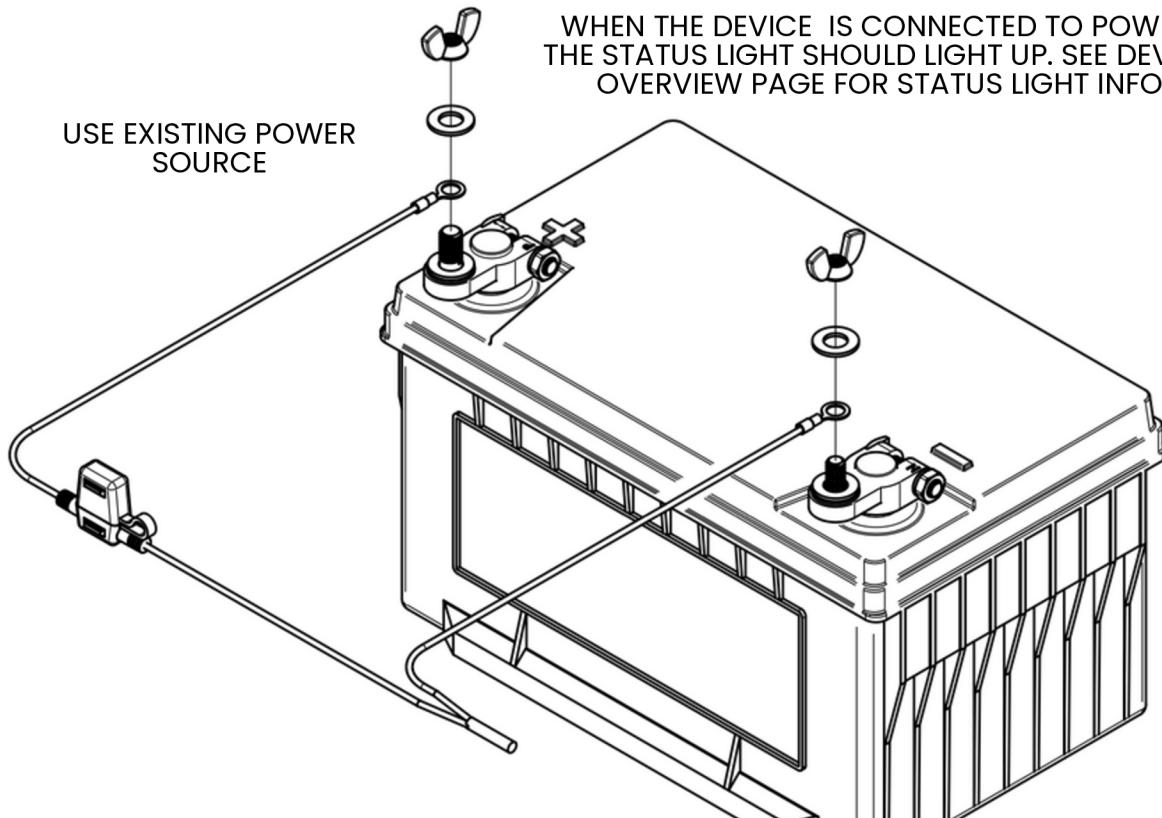


# 5. CONNECT TO POWER



USE EXISTING POWER SOURCE

WHEN THE DEVICE IS CONNECTED TO POWER,  
THE STATUS LIGHT SHOULD LIGHT UP. SEE DEVICE  
OVERVIEW PAGE FOR STATUS LIGHT INFO



THE TC-3  
ACCEPTS  
8-48VDC

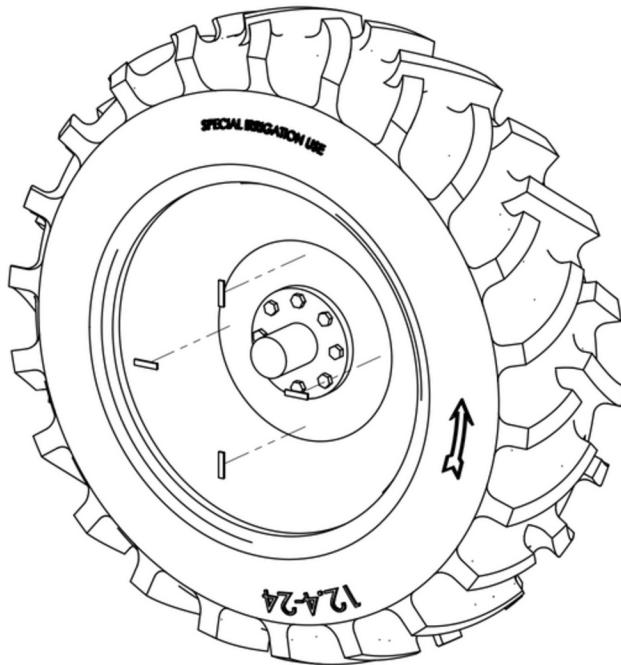


IF NO POWER IS AVAILABLE, FarmHQ OFFERS A SOLAR CHARGING OPTION OR  
YOU CAN FIND RECOMMENDATIONS AT [FarmHQ.com/support](http://FarmHQ.com/support)

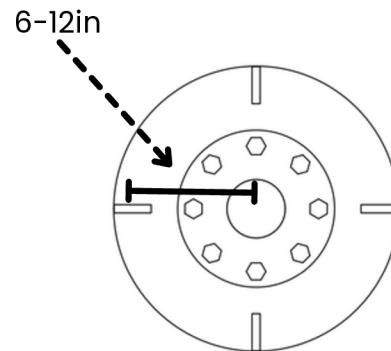
# 6. INSTALL THE MAGNETS



PLACE 4-8 MAGNETS EVENLY  
ON THE WHEEL.



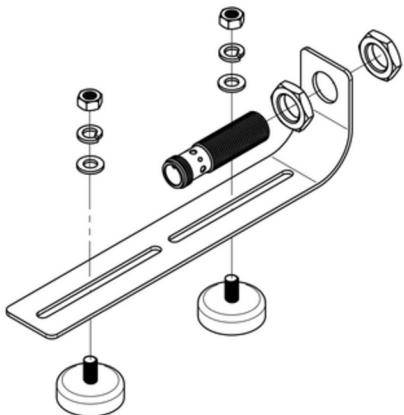
PLACE MAGNETS 6-12in (15-30 cm) FROM  
THE AXIS OF THE WHEEL



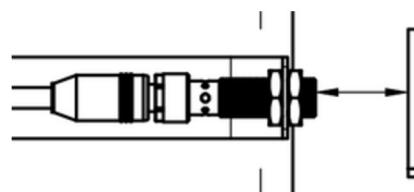
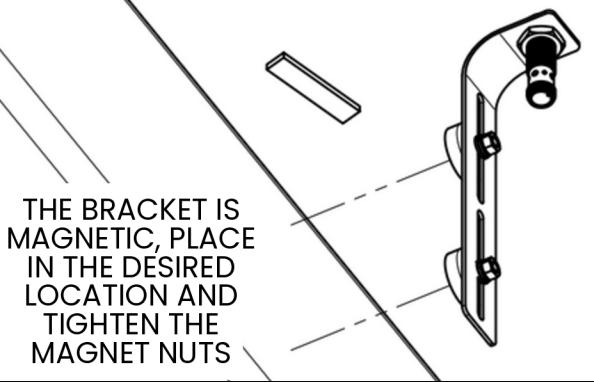
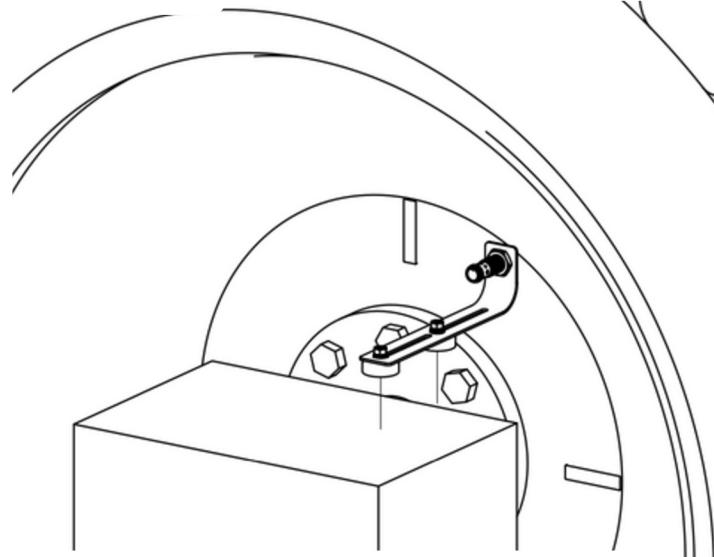
# 7. INSTALL MAGNETIC SENSOR



BEND BRACKET TO DESIRED SHAPE



PLACE THE SENSOR SO THAT IT DOES NOT GET KNOCKED OFF BY YOUR CROP OR MUD AS THE LINEAR MOVES



# 8. GETTING STARTED WITH THE APP



## A. DOWNLOAD THE FARMHQ APP

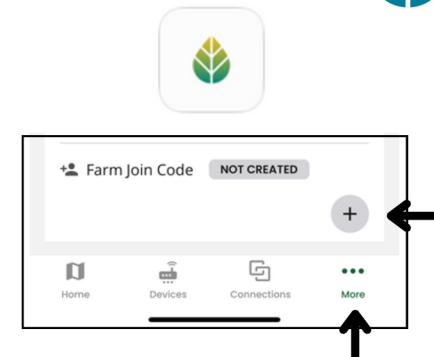
## B. SIGN UP, CREATE OR JOIN AN ACCOUNT

CREATE YOUR OWN USER ACCOUNT. EVERY USER NEEDS TO HAVE AN ACCOUNT. FOLLOW THE PROMPTS TO VERIFY YOUR EMAIL ADDRESS AND PHONE NUMBER. NEXT CREATE A NEW FARM ACCOUNT. IF A FARM ACCOUNT ALREADY EXISTS, USE A FARM JOIN CODE TO BE ADDED TO THE EXISTING FARM. SOMEONE WHO HAS ACCESS TO THE ACCOUNT CAN GENERATE ONE FOR YOU.

## C. ADD A DEVICE

FROM THE DEVICES TAB ADD A NEW DEVICE. INPUT THE DEVICE ALIAS PRINTED ON THE FRONT OF THE DEVICE. THE CONFIGURATION WORKFLOW GUIDES YOU STEP BY STEP. YOU CAN CHANGE CONFIGURATION DETAILS LATER IF YOU NEED TO.

**APP BASICS** – GO TO [www.farmHQ.com/support](http://www.farmHQ.com/support) FOR AN OVERVIEW OF HOW THE APP WORKS





# 9. VERIFY CORRECT OPERATION

**PLEASE DON'T SKIP THIS STEP. IF YOU DO NOT HAVE THE ABILITY TO RUN THE LINEAR AT THE TIME OF INSTALL MAKE SURE YOU VERIFY STEPS C AND D NEXT TIME THE LINEAR IS RUNNING.**

## **A. VERIFY MAGNETIC SENSOR FUNCTIONALITY.**

WAVE A MAGNET IN FRONT OF THE MAGNETIC SENSOR ONCE PER SECOND FOR 10 SECONDS. CHECK THE STATUS OF THE DEVICE IN THE FARMHQ APP. YOU SHOULD SEE THE STATUS OF THE LINEAR CHANGE FROM STOPPED TO MOVING. IF YOU DO NOT SEE THE LINEAR STATUS CHANGE, GO TO TROUBLESHOOTING.

## **B. VERIFY MAGNET PLACEMENT**

THE FIRST TIME YOU MOVE THE LINEAR, CHECK THE MAGNETS TO MAKE SURE THAT EVERY MAGNET PASSES IN FRONT OF THE MAGNETIC SENSOR. **INCORRECT MAGNET PLACEMENT AND SENSOR ALIGNMENT IS THE MOST COMMON PROBLEM WITH NEW INSTALLATIONS.**

## **C. VERIFY PRESSURE.**

MAKE SURE THE APP IS REPORTING THE SAME PRESSURE AS THE GAUGE ON THE LINEAR.

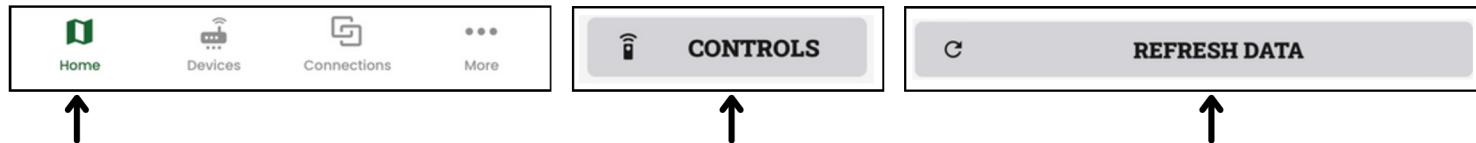
## **D. VERIFY GPS LOCATION.**

THE DEVICE SHOULD ACQUIRE A GPS SIGNAL AND SHOW UP ON THE STATUS MAP WITHIN FIVE MINUTES. IF YOU ARE INSTALLING INSIDE A BUILDING IT MAY NOT GET GPS. LIKELY THE DEVICE WILL GET GPS SERVICE ONCE IT IS IN THE FIELD.

# TROUBLESHOOTING - BASIC CHECKS

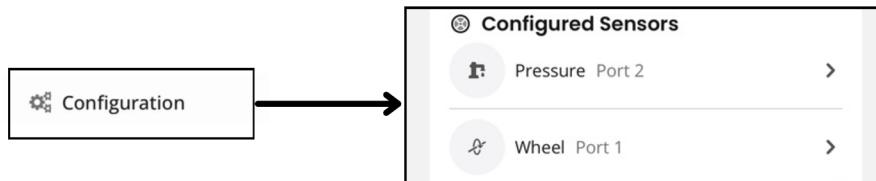
A. CHECK THAT THE TC-3 IS POWERED ON AND THE STATUS LIGHT IS PULSING LIGHT BLUE.

B. CLICK ON THE HOME TAB AND CLICK ON THE DESIRED DEVICE. CLICK "REFRESH DATA"

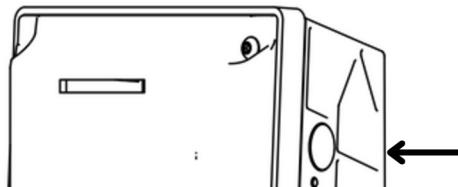


C. VERIFY THE LINEAR CONFIGURATION. CHECK THE FOLLOWING.

1. MAKE SURE YOU SELECTED THE CORRECT DEVICE TYPE - "LINEAR"
2. MAKE SURE THE SENSOR PORT MATCHES HOW IT IS CONNECTED TO THE WIRE HARNESS



D. RESTART THE DEVICE - HOLD THE POWER BUTTON UNTIL THE LIGHT TURNS GREEN (3 SECONDS) THEN LET GO. PRESS THE BUTTON ON THE RIGHT SIDE AGAIN TO TURN IT BACK ON. WAIT FOR THE DEVICE TO BEGIN PULSING LIGHT BLUE. THE DEVICE WON'T

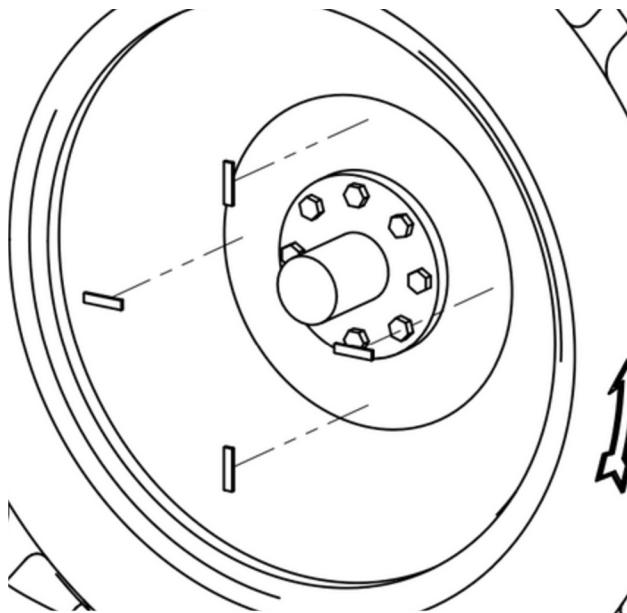


# TROUBLESHOOTING - LINEAR SPEED

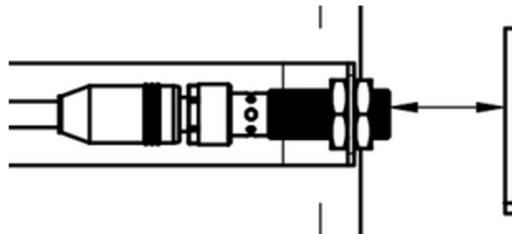
START TROUBLESHOOTING WITH BASIC CHECKS BEFORE COMING HERE



A. MAKE SURE THE MAGNETS ARE EVENLY SPACED ON THE WHEEL.



C. CHECK THE DISTANCE BETWEEN THE MAGNETIC SENSOR AND THE MAGNETS. MAKE SURE IT IS SET TO 1IN (2.5CM)



D. CHECK THE WHEEL DIAMETER. MAKE SURE THE DIMENSIONS ARE ACCURATE. IF THE DIMENSIONS ARE OFF THIS CAN CAUSE LARGE VARIATIONS IN THE SPEED

B. BEGIN TO MOVE THE LINEAR. MAKE SURE THE MAGNETIC SENSOR PASSES IN FRONT OF EACH MAGNET. IF ANY OF YOUR MAGNETS MOVED AFTER INSTALL, USE SILICONE CAULK OR SIMILAR ADHESIVE TO ATTACH THE MAGNETS TO THE LINEAR IF THEY MOVE AFTER INSTALL.

Wheel Diameter	48 in	
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