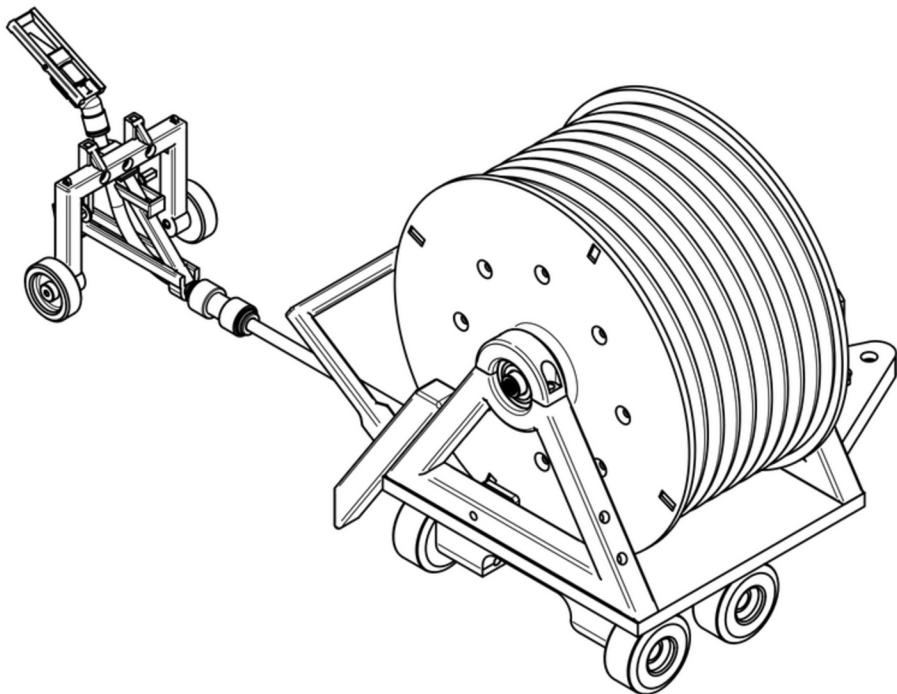


# FarmHQ REEL INSTALLATION

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

August 2024 • Version 3.2



# TC-3 REEL 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

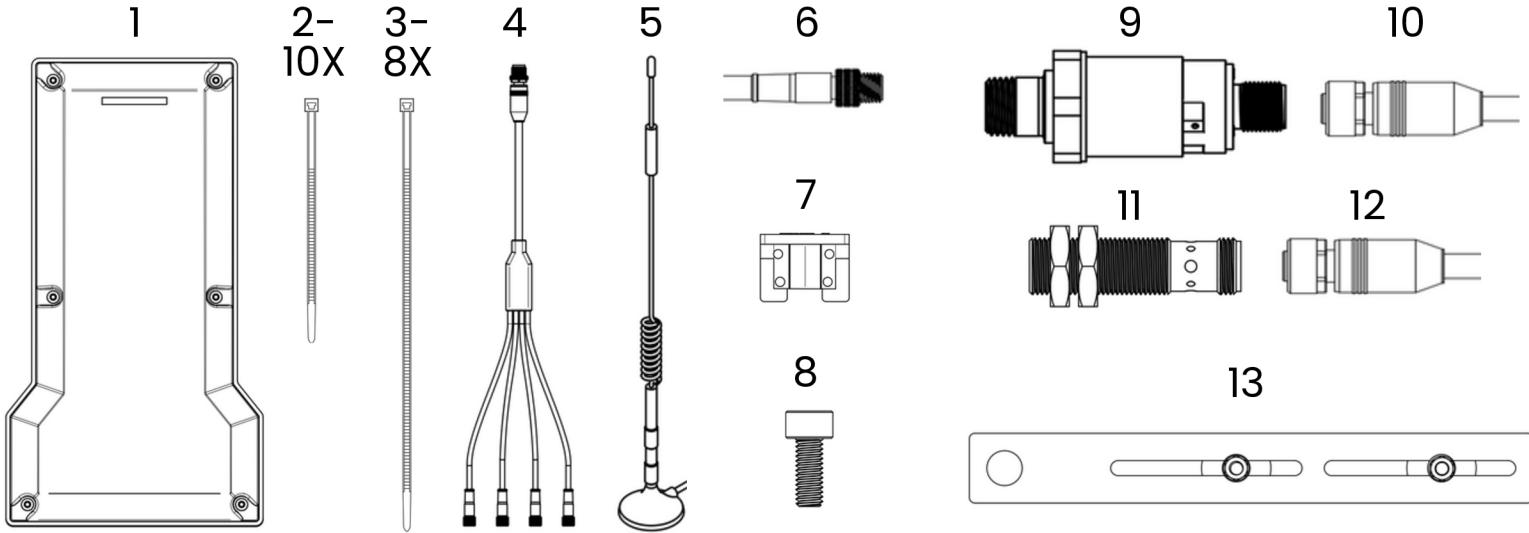


## SUPPORT

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



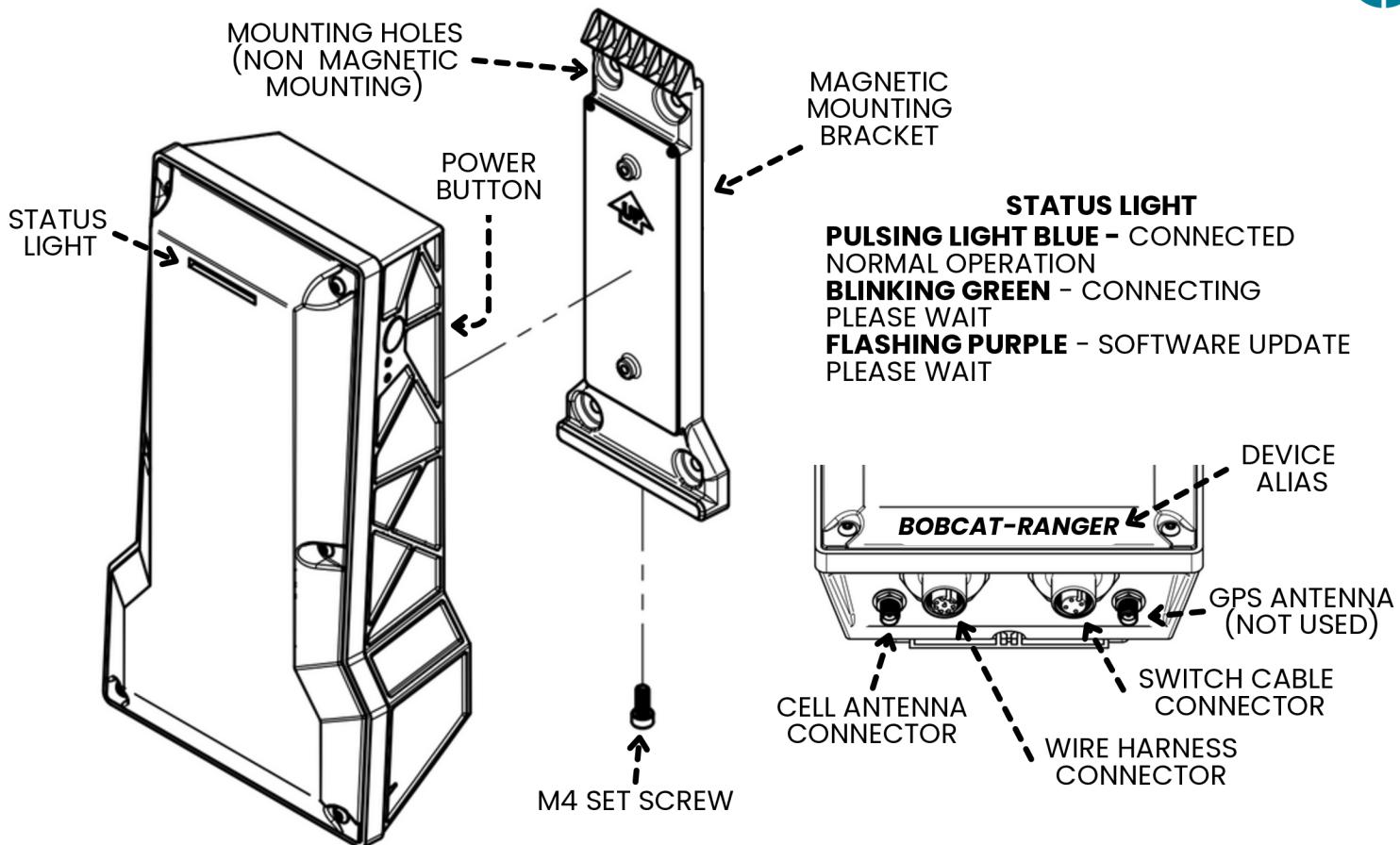
# INSTALLATION HARDWARE



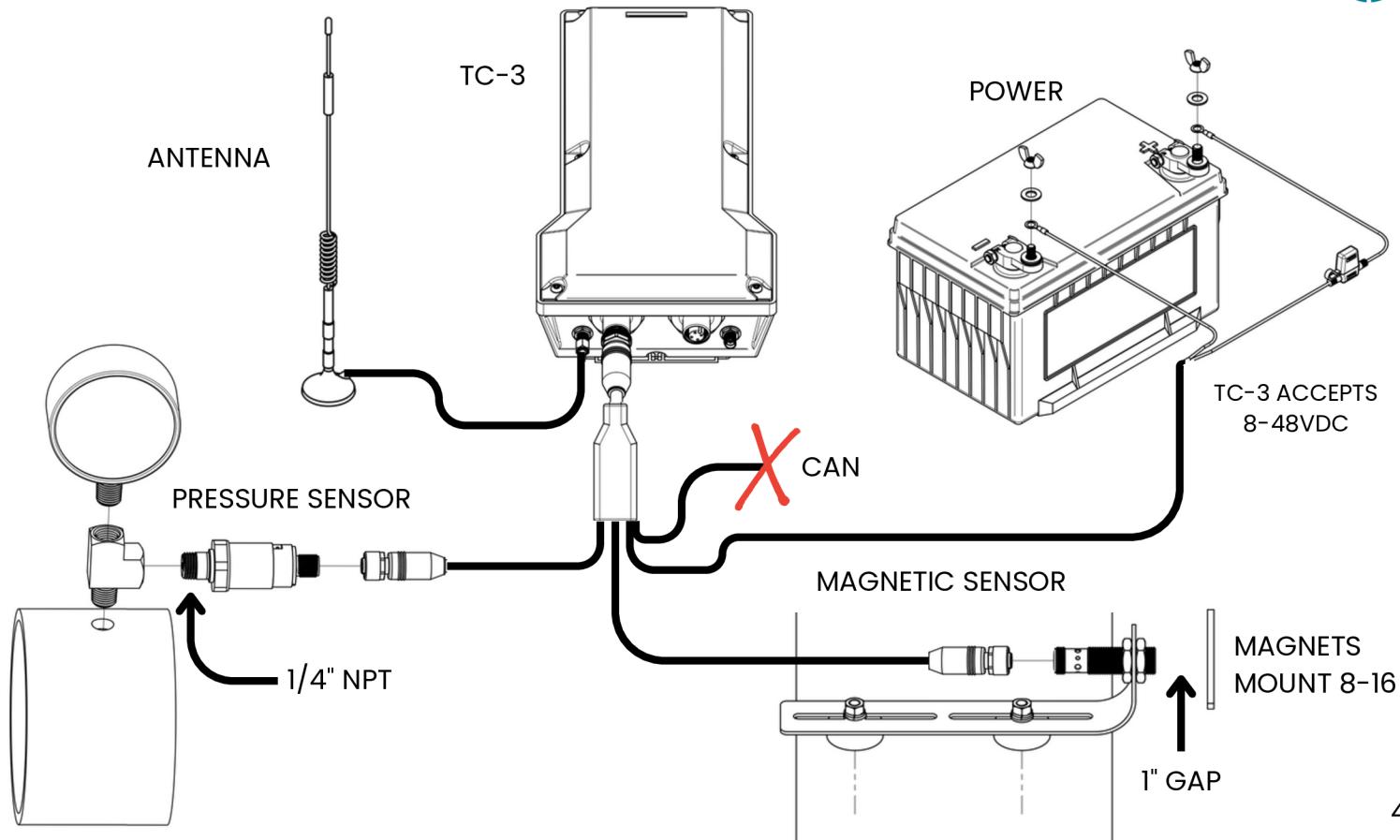
- 1. TC-3
- 2. 6" CABLE TIES
- 3. 11" CABLE TIES
- 4. TC-3 WIRE HARNESS
- 5. ANTENNA
- 6. 3M POWER CABLE
- 7. SPARE 5A BLADE FUSE
- 8. M4 SET SCREW

- 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

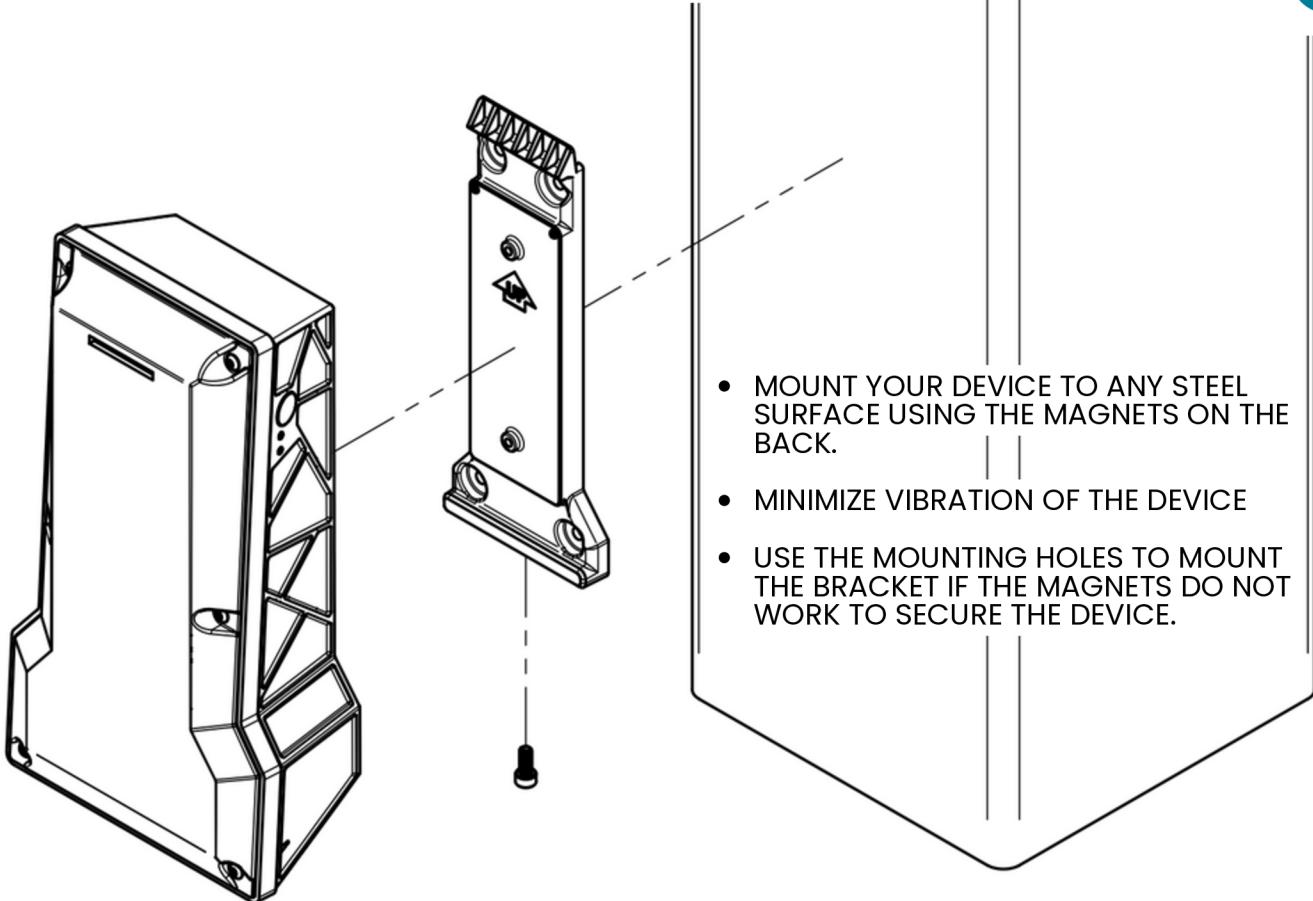
# DEVICE OVERVIEW



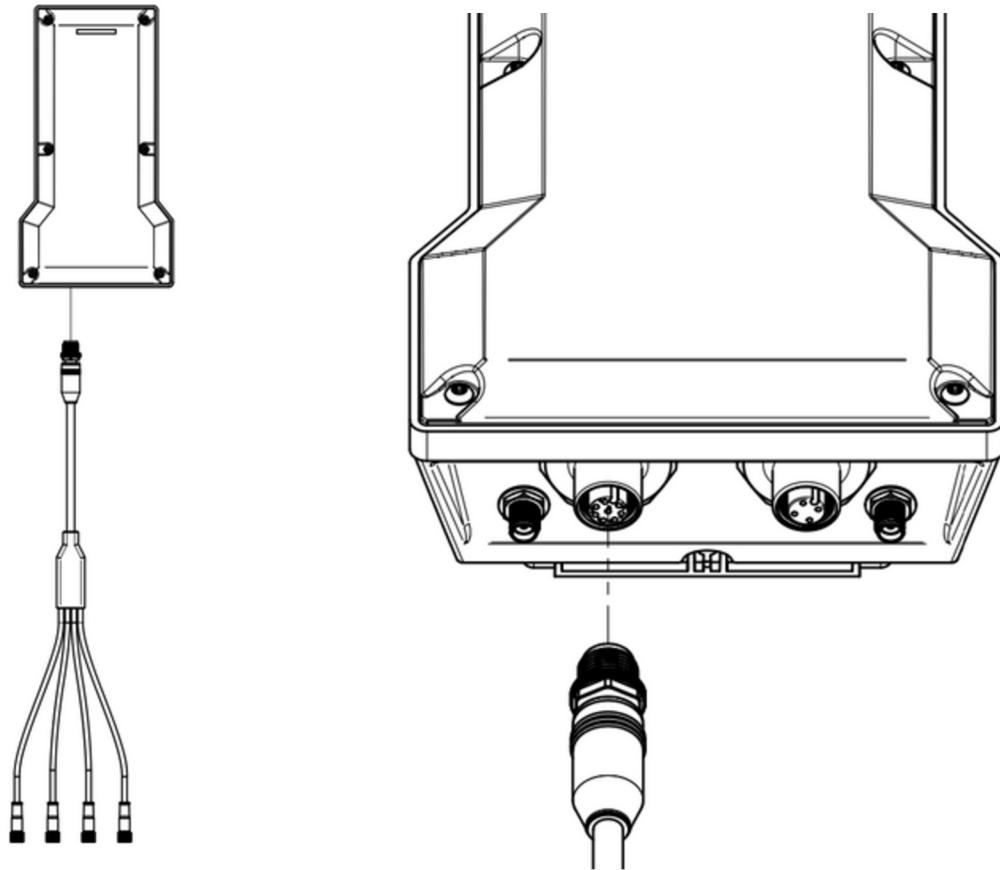
# INSTALLATION OVERVIEW



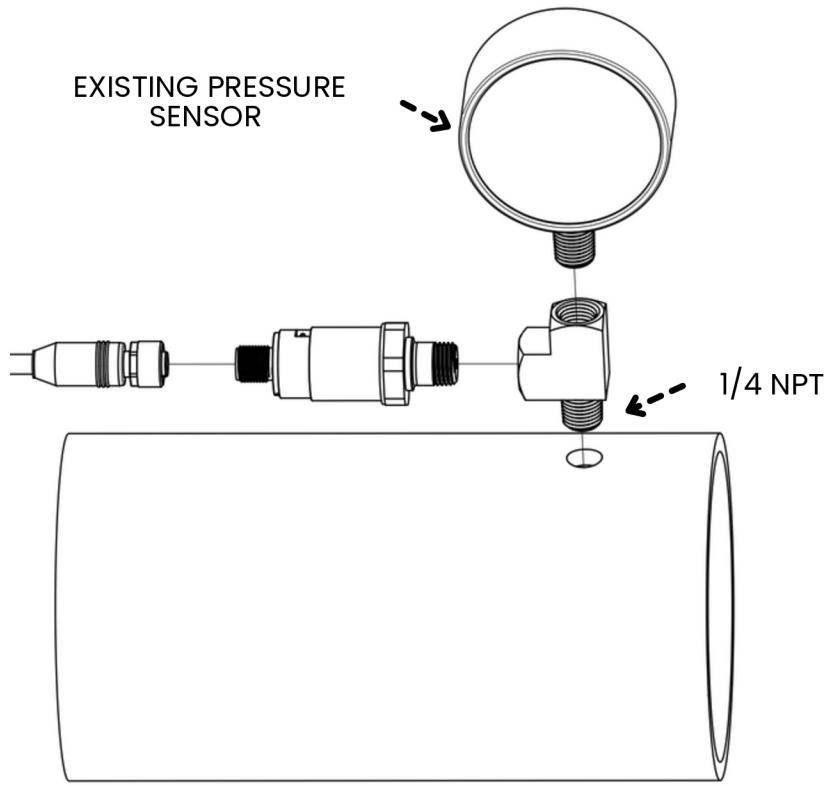
# 1. MOUNT YOUR DEVICE



## 2. CONNECT WIRE HARNESS



### 3. CONNECT PRESSURE SENSOR

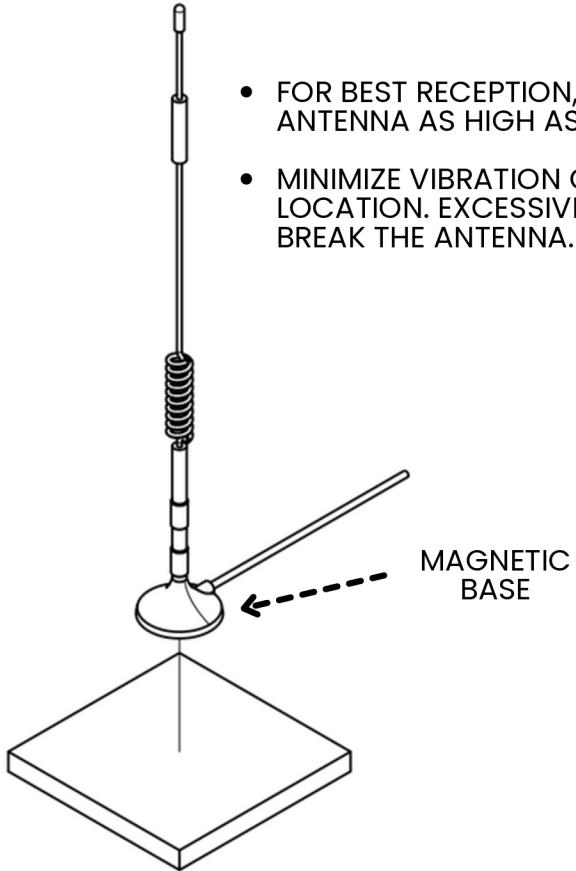


CONNECT TO  
SENSOR 2

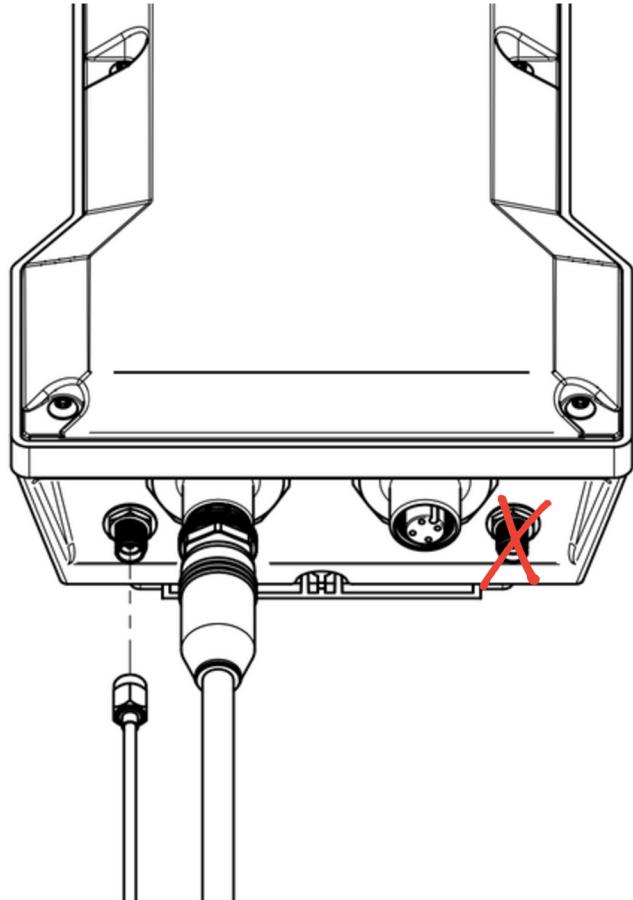


IF THE MAGNETIC SENSOR AND  
PRESSURE SENSOR CABLE ARE  
NOT LABELED THE CABLES ARE  
INTERCHANGEABLE

# 4. CONNECT THE ANTENNA



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

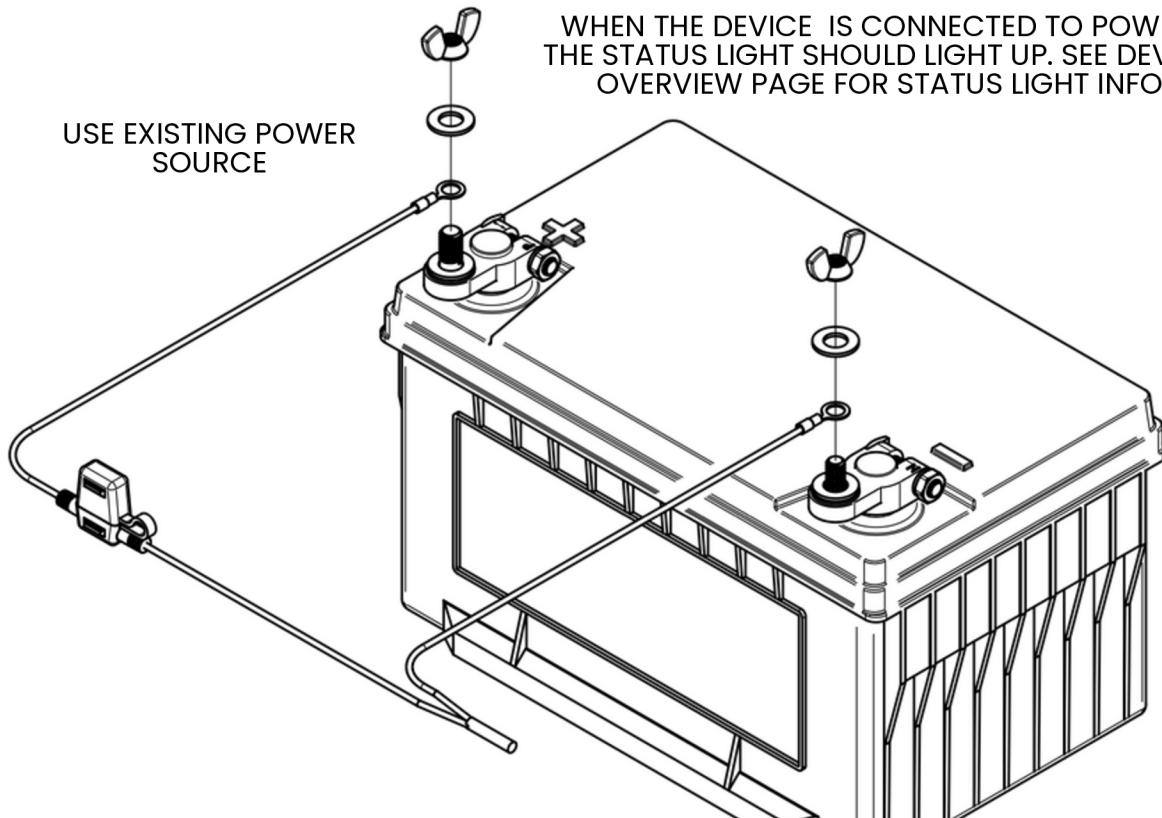


# 5. CONNECT TO POWER



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

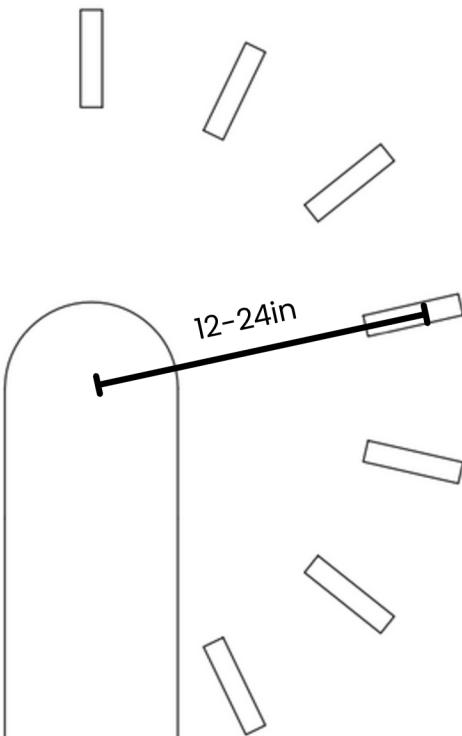


IF NO POWER IS AVAILABLE, FarmHQ OFFERS A SOLAR CHARGING OPTION OR  
YOU CAN FIND RECOMMENDATIONS AT [FarmHQ.com/support](http://FarmHQ.com/support)



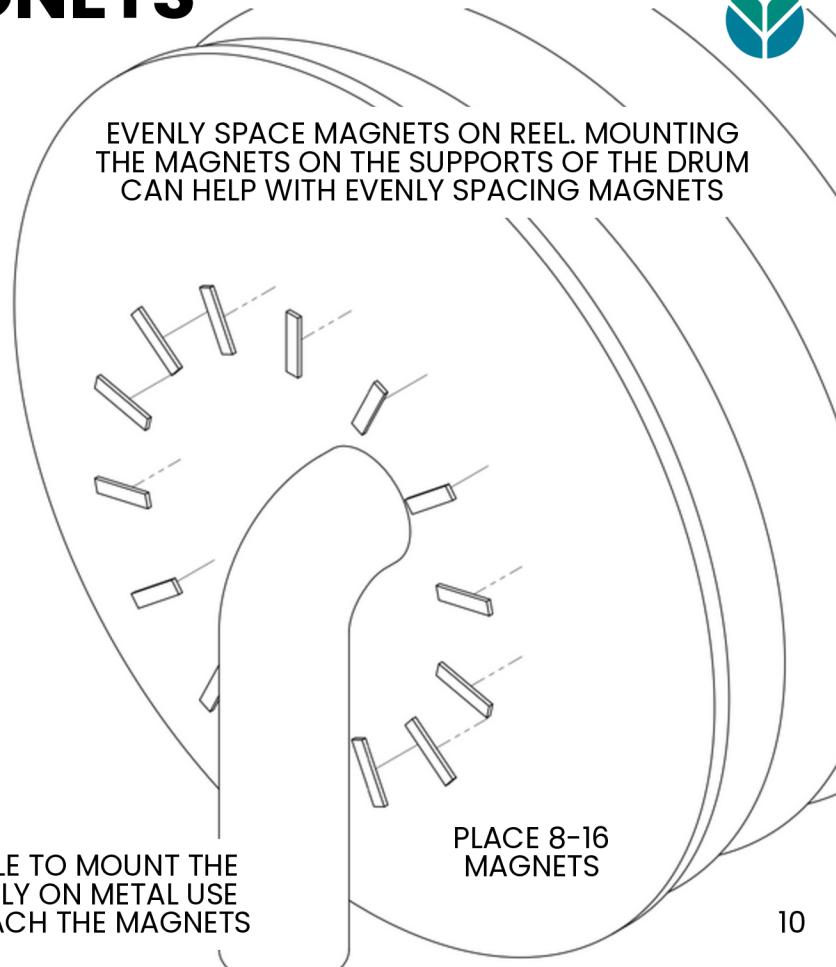
# 6. INSTALL THE MAGNETS

PLACE MAGNETS 12-24in (30-60cm) FROM THE AXIS OF ROTATION (WHERE WATER ENTERS THE REEL) USE A SHARPIE AND TAPE MEASURE TO MARK THE LOCATION OF EACH MAGNET



IF YOU ARE UNABLE TO MOUNT THE MAGNETS DIRECTLY ON METAL USE ADHESIVE TO ATTACH THE MAGNETS

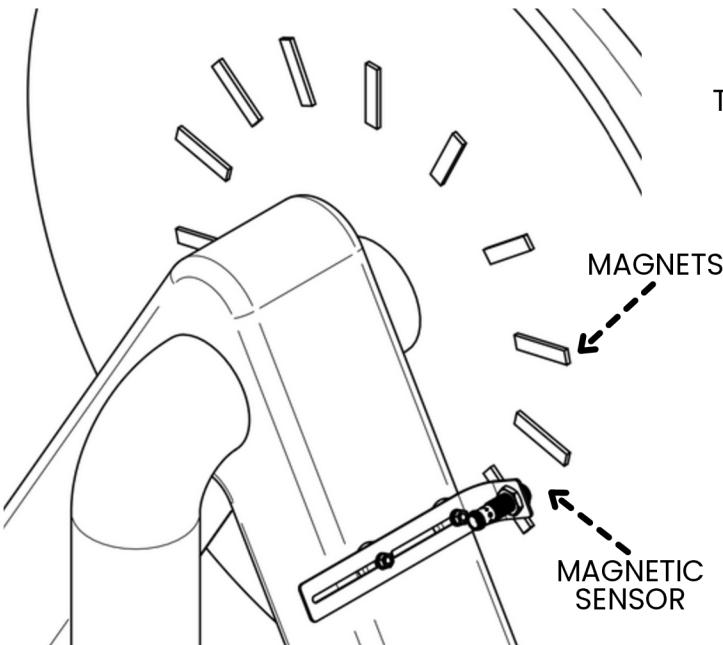
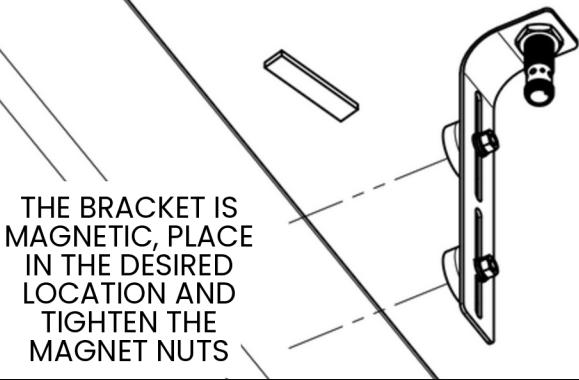
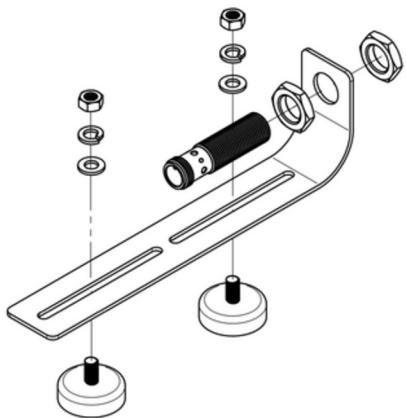
EVENLY SPACE MAGNETS ON REEL. MOUNTING THE MAGNETS ON THE SUPPORTS OF THE DRUM CAN HELP WITH EVENLY SPACING MAGNETS



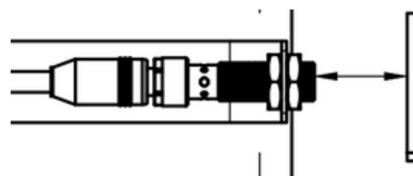
# 7. INSTALL MAGNETIC SENSOR



BEND BRACKET  
TO DESIRED SHAPE



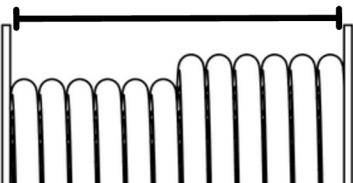
SET THE DISTANCE BETWEEN MAGNETS AND SENSOR TO 1"  
(2.5cm). IF THE MAGNETS DO NOT STICK TO THE REEL, USE  
SILICONE OR SIMILAR ADHESIVE TO ATTACH THE MAGNETS.



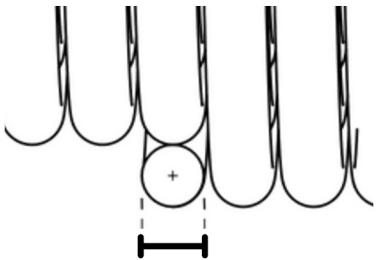
# 8. MEASURE YOUR REEL



A. INSIDE REEL WIDTH

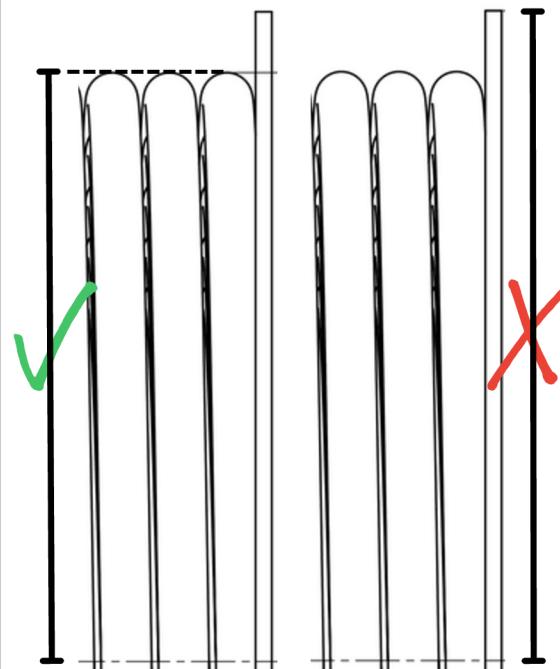


B. HOSE OUTSIDE DIAMETER

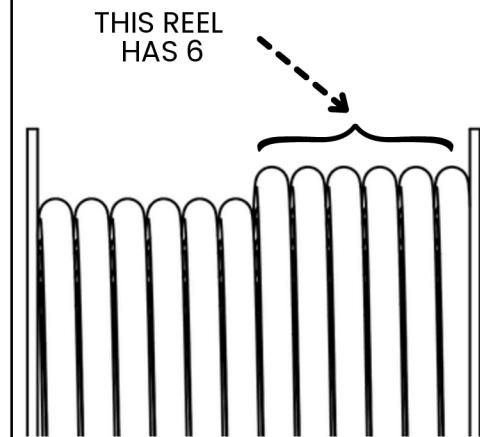


C. OUTER HOSE RADIUS

MEASURE FROM THE AXIS OF ROTATION TO THE OUTSIDE OF THE HOSE.



D. NUMBER OF OUTER HOSE WRAPS

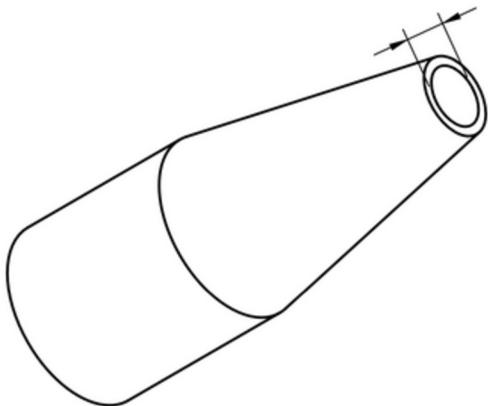


\*REEL MUST BE FULLY RETRACTED BEFORE MEASURING

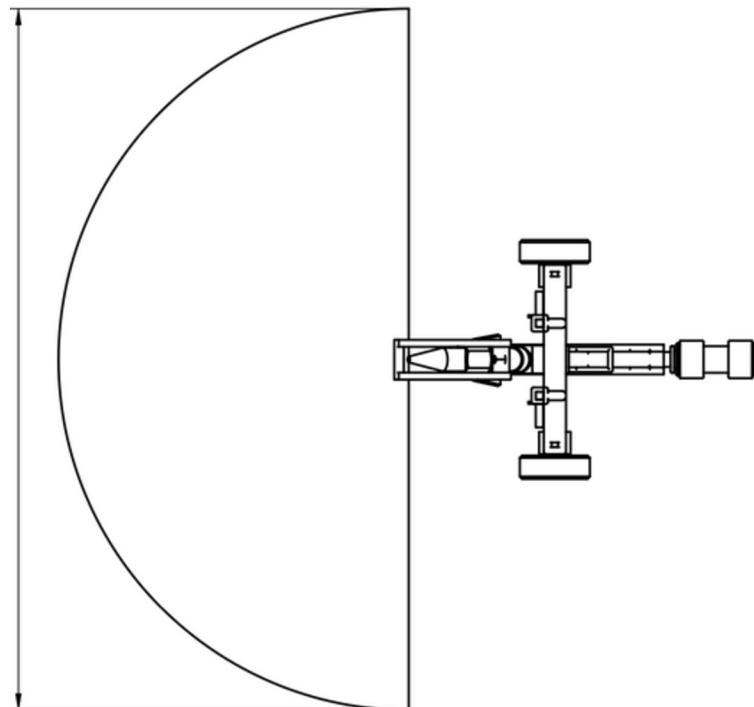
# 9. MEASURE YOUR GUN/BOOM



A. DIAMETER OF NOZZLE (GUN ONLY)



B. SWATH WIDTH OR BOOM WIDTH



# 10. GETTING STARTED WITH THE APP



## A. DOWNLOAD THE FARMHQ APP

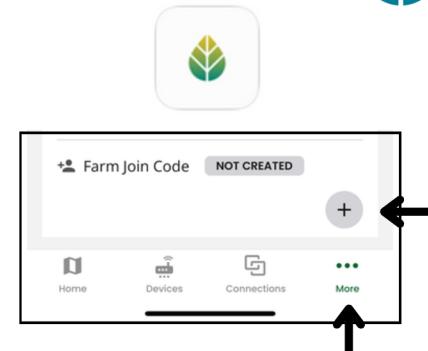
## B. SIGN UP, CREATE OR JOIN AN ACCOUNT

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



# 11. VERIFY CORRECT OPERATION



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

## **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 REEL CHANGE FROM REEL STOPPED TO EXTENDING. IF YOU DO NOT SEE THE REEL STATUS CHANGE, GO TO TROUBLESHOOTING.

## **B. VERIFY MAGNET PLACEMENT**

THE FIRST TIME YOU EXTEND THE REEL, 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 REEL.

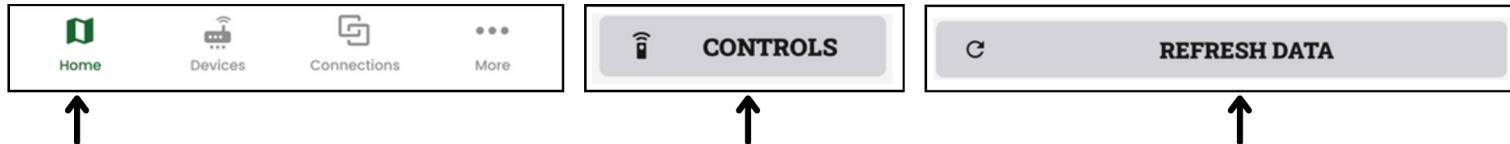
## **D. VERIFY GPS LOCATION.**

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"

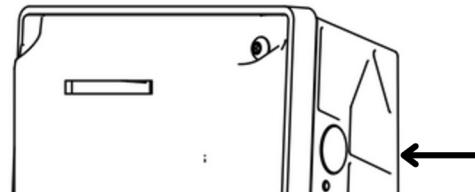


C. VERIFY THE REEL CONFIGURATION. CHECK THE FOLLOWING.

1. MAKE SURE YOU SELECTED THE CORRECT DEVICE TYPE - "REEL"
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 WONT

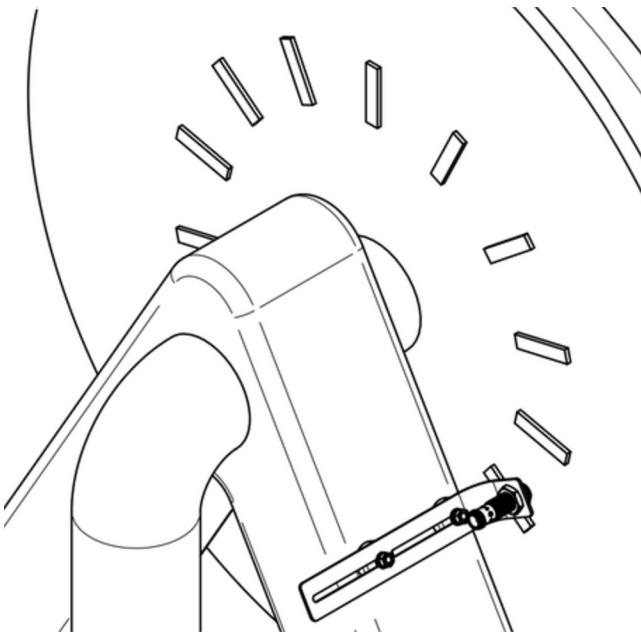


# TROUBLESHOOTING - REEL SPEED OR DISTANCE

START TROUBLESHOOTING WITH BASIC CHECKS BEFORE COMING HERE

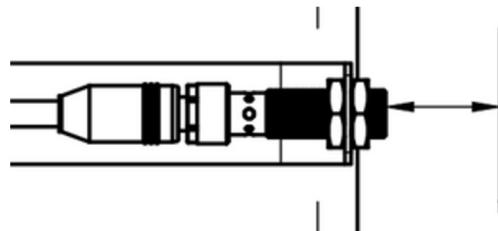


A. MAKE SURE THE MAGNETS ARE EVENLY SPACED ON THE REEL.



B. BEGIN TO RETRACT THE REEL. 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 REEL.

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



D. CHECK THE REEL DIMENSIONS. MAKE SURE THE DIMENSIONS INPUT INTO THE REEL CONFIGURATION ARE ACCURATE. IF THE DIMENSIONS ARE OFF THIS CAN CAUSE LARGE VARIATIONS IN THE SPEED AND DIRECTION.



## Reel Sensor

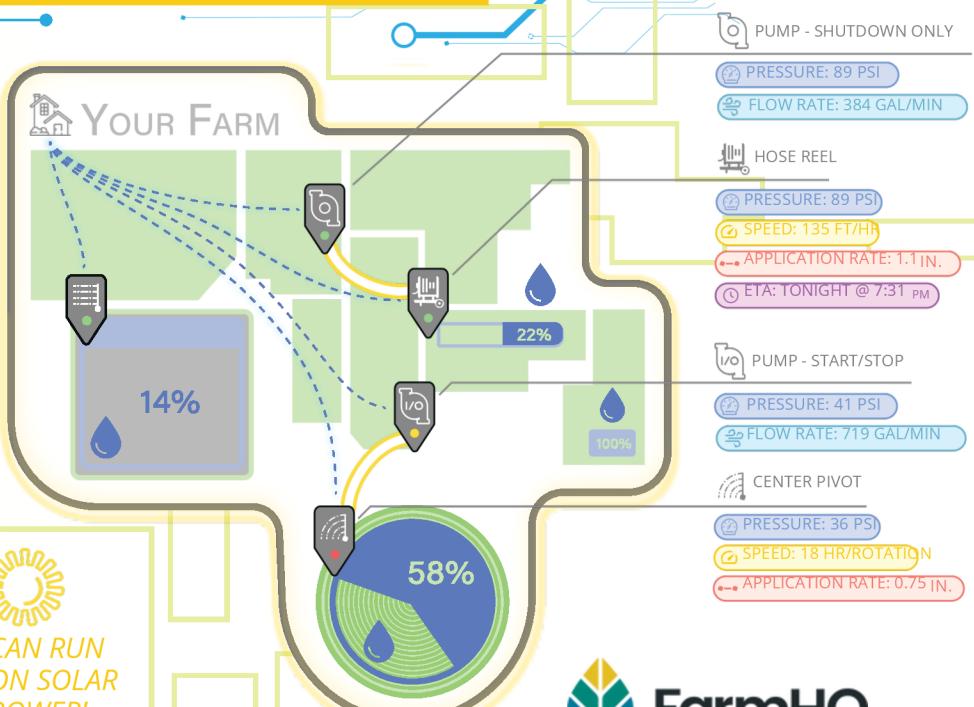
Outer Hose Wrap Radius 56 in

Spool Width 60 in

# SMART IRRIGATION CONTROL FOR EVERY FARM

Get all your irrigation equipment online and in sync to save time, cut stress, and lower your costs.

Our suite of irrigation tools allow you to monitor your entire farm from the palm of your hand.



## APPLICATIONS

- |  |                    |  |             |
|--|--------------------|--|-------------|
|  | SHUTDOWN ONLY      |  | START/STOP  |
|  | VARIABLE FREQUENCY |  | FLOW METERS |
|  | CENTER PIVOT       |  | LINEAR MOVE |
|  | VALVES             |  | HOSE REELS  |

Real-time monitoring, text message alerts, records and usage analytics, machine-to machine communication, and much, much more.