

# ONRAX Ascension AS48 Motorized Storage 4' x 8' Platform

# **Installation Instructions**

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# **WARNING**

Always take care to have all persons or animals away from and not underneath the ONRAX platform during raising and lowering.

# **Maximum Ceiling Height**

For ONRAX units, the maximum ceiling height is 14 feet. If your ceiling is higher please call ONRAX at 1-866-637-8828. Failure to do so will prevent the unit from reaching the ground and also may cause the straps to fail during use.

## **Test Installation**

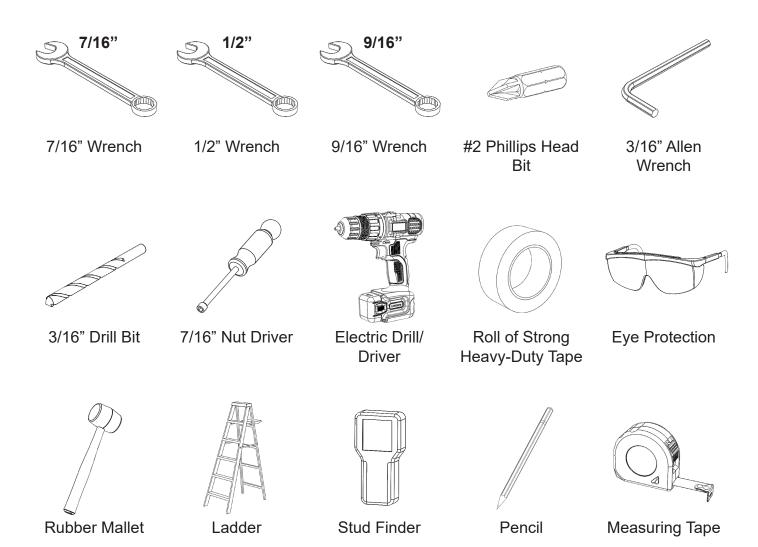
Once unit is installed, always test it by running it up and down with load. Make sure all persons or animals are away from and not underneath the platform during raising and lowering.

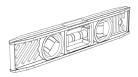
## **Over-Travel Switch**

Always stop the ONRAX unit before the Over-Travel Switch is activated. The Over-Travel Switch is an emergency device ONLY.

Enduro-Deck® Panels are covered under US Patent No. US D600,362 S

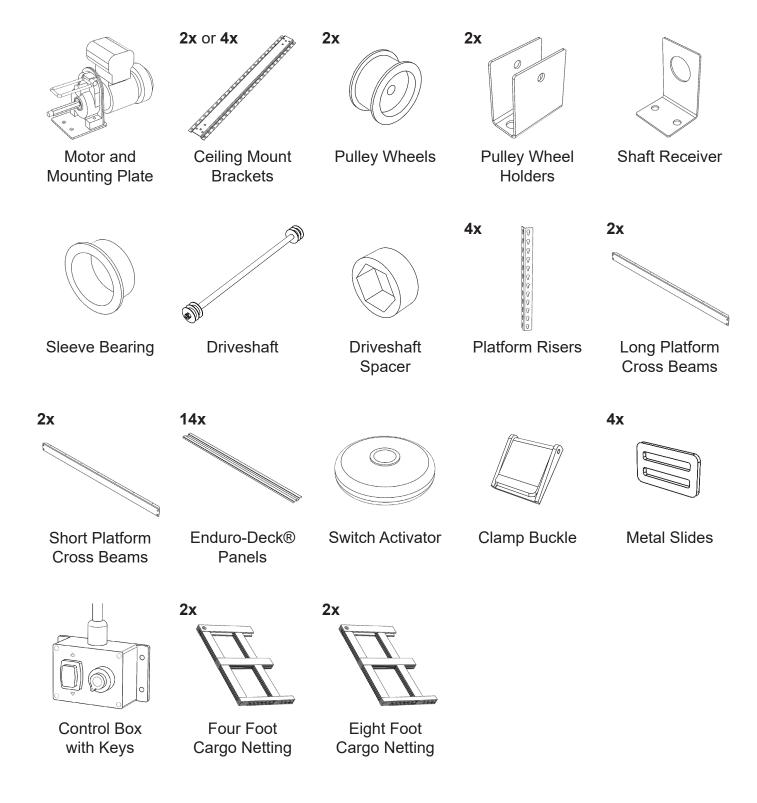
# **Tool List**





Level

# **Parts List**



# **Hardware List**

8x

8x

**2**x

**2**x

28x



Carriage Bolts (3/8"-16 x 3/4") Flanged Locknuts (3/8"-16)

**Shoulder Bolts** (3/8" x 1.5")

Locknuts (5/16"-18)

Screws (10-24 x 3/8")

16x



Lag Bolts (1/4" x 2.5") **4**x



Anchors (1 1/4")

10x

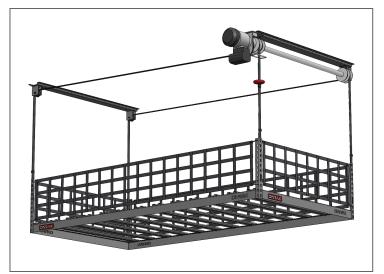


Adhesive Cable Tie Mounts

10x



**Small Cable Ties** 

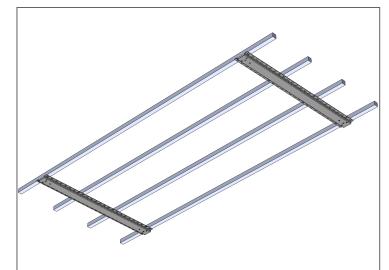


Before installation, consider the installation location. Take into consideration the locations of the Motor, the Control Box, and your power source outlet.

The Motor can only be located in the front right or back left corner.

The control box should be located in such a way that the user is away from and not underneath the platform when in use.

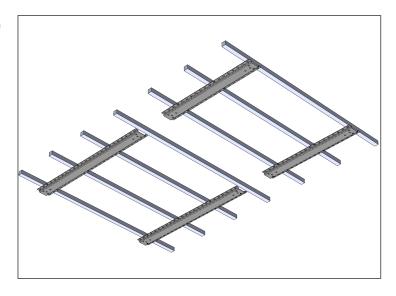
2)



Mark the orientation of the overhead joist supports in your ceiling. Look at the mounting layout diagrams and determine the location of the Ascension unit and the location and orientation of the Ceiling Mount Brackets. A layout sketch of the overhead support structure can make this job easier. Select the appropriate layout for your situation.

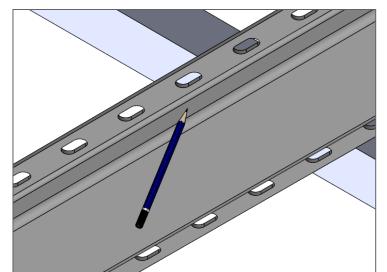
Select either Layout AS48-A, AS48-B, AS48-C, or AS48-D before proceeding.

3)



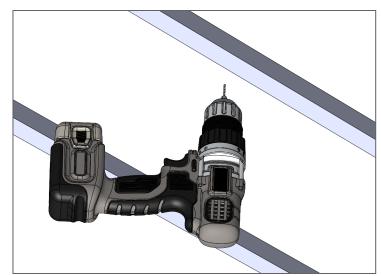
#### **ATTENTION**

If you are using Layout AS48-C or AS48-D you will need shorter 38" Ceiling Brackets that are not included with the standard AS48 package. You can reposition the unit to use Layout AS48-A or AS48-B, or alternatively please contact ONRAX at 1-866-637-8828 for the necessary 38" Ceiling Brackets.



Mark where the studs are on your ceiling. Hold the Ceiling Brackets onto the ceiling and mark locations for Lag Bolts through the holes in the Ceiling Bracket. These locations need to be centered on the studs so that the Lag Bolts will fully engage the wood. The Ceiling Mount Bracket must be secured to at least two (2) overhead supports with two Lag Bolts per support, minimum of four (4) per Ceiling Bracket. The Lag Bolts must hit supports within 12" of each end of the Bracket. Reference the layout diagram.

5)



Using the 3/16" Drill Bit, drill pilot holes for the Lag Bolts at the marked locations. These pilot holes need to be centered on the studs so that the Lag Bolts are engaging fully into the wooden studs.

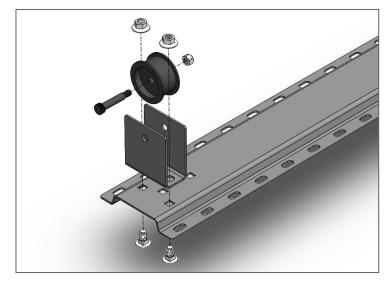
For Layout AS48-A, GO to Step 6.

For Layout AS48-B, SKIP to Step 12.

For Layout AS48-C, SKIP to Step 19.

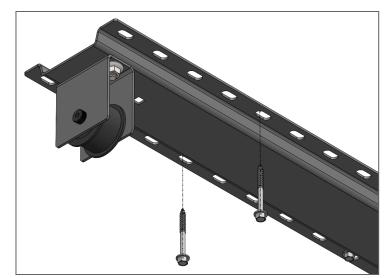
For Layout AS48-D, SKIP to Step 26.

6)



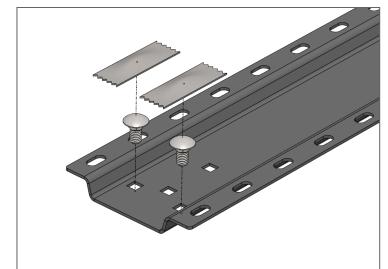
#### For Layout AS48-A

Take one Ceiling Bracket and mount the two U shaped Pulley Wheel Holders (one on each end). Use two (2) 3/8"-16 x 3/4" Carriage Bolts and two (2) 3/8"-16 Flanged Locknuts to mount each holder. These Pulley Wheel Holders will be about 45" apart on the ceiling bracket and mounted so that wheel will be perpendicular to the bracket. Mount the Pulley Wheels into the Holders using the 3/8" x 1.5" Shoulder Bolts and 5/16" Locknuts.



Mount the assembled Ceiling Mount Bracket using Lag Bolts at the location where you drilled the pilot holes using at least four (4) Lag Bolts per Bracket.

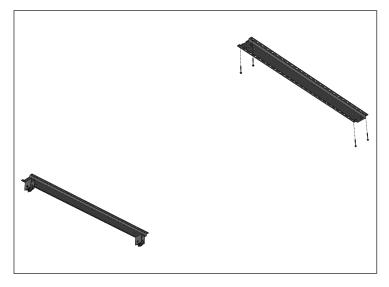
8)



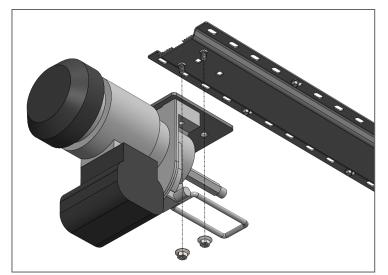
Take the other Ceiling Mount Bracket and insert two (2) 3/8" x 3/4" Carriage Bolts in each end. Use the same hole locations that were used on the first bracket.

Apply some Heavy-Duty Tape such as Duct Tape to the back of the Carriage Bolts to aid in installation and to keep them from getting knocked out when attaching the parts to them.

9)



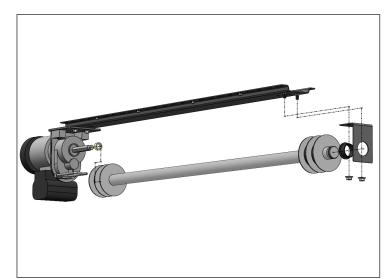
Mount the second Ceiling Mount Bracket 88 7/8" inches away from and parallel to the first Bracket. The Ceiling Mount Bracket is secured with four (4) lag bolts at the locations of the pilot holes drilled previously.



The Motor should have the mounting plate already attached to it. Lift the Motor and attach it to the two (2) Bolts on one end of the main Ceiling Brackets.

The Motor needs to be in the front right corner or back left corner. Reference the layout diagram.

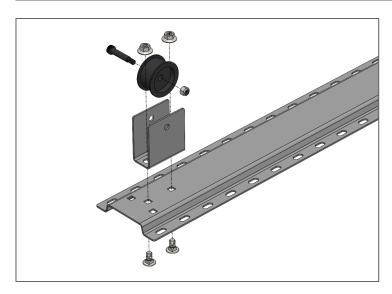
11)



Mount the Driveshaft and Shaft Receiver. Place the Spacer onto the hex motor shaft. Lift up the Driveshaft and slip it onto the hex motor shaft. At the other end of the Driveshaft slide the Shaft Receiver over the end. Then bolt the Shaft Receiver to the Ceiling Bracket with two (2) Flanged Locknuts on the two (2) Carriage Bolts that you placed into the Ceiling Bracket prior to installation of the Bracket on the ceiling.

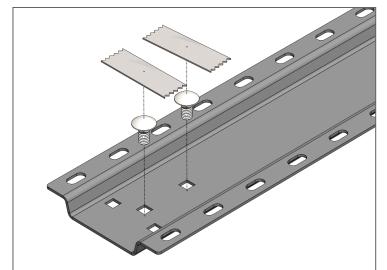
SKIP to Step 33

12)



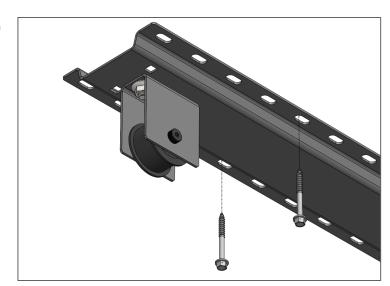
## For Layout AS48-B

Take two Ceiling Brackets and mount a U shaped Pulley Wheel Holder at one end. Use two (2) 3/8"-16 x 3/4" Carriage Bolts and two (2) 3/8"-16 Flanged Locknuts to mount each holder. The Pulley Wheel Holders will be mounted so that wheel will be parallel to the bracket. Mount the Pulley Wheel into the Holder using one (1) 3/8" x 1.5" Shoulder Bolt and one (1) 5/16" Locknut. Repeat this process for the other Bracket.



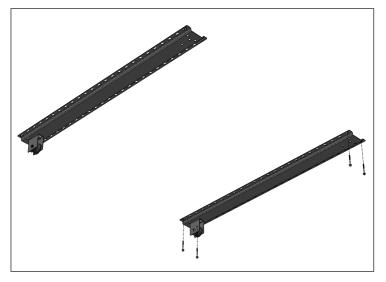
On the other two Ceiling Brackets, insert two (2) 3/8" x 3/4" Carriage Bolts in one end. Use the same hole locations that were used on the first bracket. Apply some tape to the back of the Carriage Bolts to aid in installation and to keep them from getting knocked out when attaching the parts to them. You should have two pairs of Ceilings Brackets, two with Pulley Wheel Holders and two with Carriage Bolts.

14)

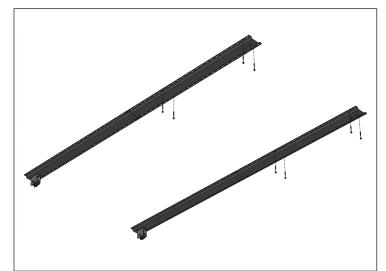


Mount one assembled Ceiling Mount Bracket where you want one side of the ONRAX unit, using the pilot holes drilled previously. Position the Pulley Holder opposite from the side you want the motor. The Ceiling Mount Bracket is mounted with four (4) 1/4" x 2.5" Lag Bolts.

15)

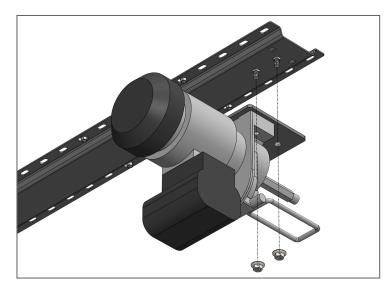


Mount the second Ceiling Bracket 41 5/8" inches away from and parallel to the first Ceiling Bracket using the previously drilled pilot holes. The Ceiling Mount Bracket is mounted with four (4) 1/4" x 2.5" Lag Bolts.



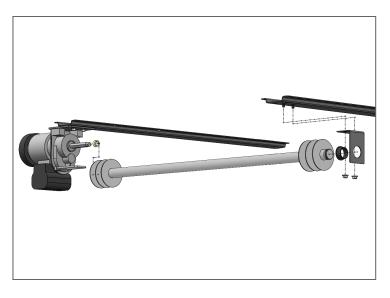
Mount the last two Ceiling Brackets using the previously drilled pilot holes with the Carriage Bolts furthest from the pulleys. The Brackets should be mounted 41 5/8" apart from each other with the ends butted up to the previously mounted ceiling brackets, using four (4) 1/4" x 2.5" Lag Bolts in each Bracket. Reference the layout diagram.

17)



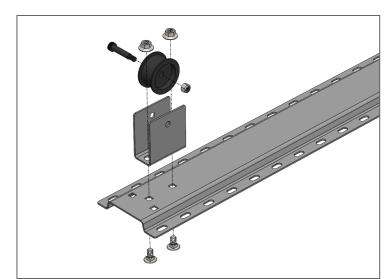
The Motor should have the mounting plate already attached to it. Lift the Motor and attach it to the two (2) Carriage Bolts on one end of the main Ceiling Brackets using two (2) Flanged Locknuts. The Motor needs to be in the front right corner or back left corner, and the Motor shaft should be positioned towards the other Ceiling Mount. Reference the layout diagram.

18)



Mount the Driveshaft and Shaft
Receiver. Place the Spacer onto the
hex motor shaft. Lift up the Driveshaft
and slip it onto the hex motor shaft.
At the other end of the Driveshaft
slide the Shaft Receiver over the end.
Then bolt the Shaft Receiver to the
Ceiling Bracket with two (2) Flanged
Locknuts on the two (2) Carriage
Bolts that you placed into the Ceiling
Bracket prior to installation of the
Ceiling Bracket on the ceiling.

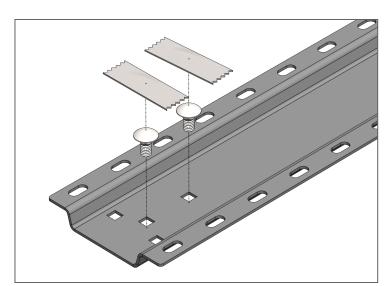
SKIP to Step 33



#### For Layout AS48-C

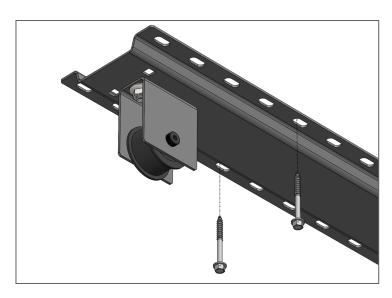
Take two Ceiling Brackets and mount a U shaped Pulley Wheel Holder at one end. Use two (2) 3/8"-16 x 3/4" Carriage Bolts and two (2) 3/8"-16 Flanged Locknuts to mount each Holder. The Pulley Wheel Holders will be mounted so that wheel will be parallel to the bracket. Mount the Pulley Wheel into the Holder using one (1) 3/8" x 1.5" Shoulder Bolt and one (1) 5/16" Locknut. Repeat this process for the other Ceiling Bracket.

20)

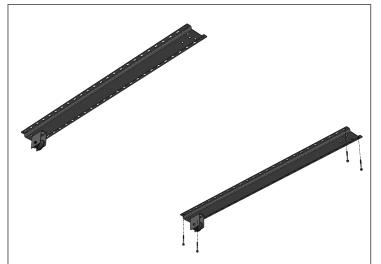


On the other two Ceiling Brackets, insert two (2) 3/8" x 3/4" Carriage Bolts in one end. Use the same hole locations that were used on the first bracket. Apply some tape to the back of the Carriage Bolts to aid in installation and to keep them from getting knocked out when attaching the parts to them. You should have two pairs of Ceilings Brackets, two with Pulley Wheel Holders and two with Carriage Bolts.

21)

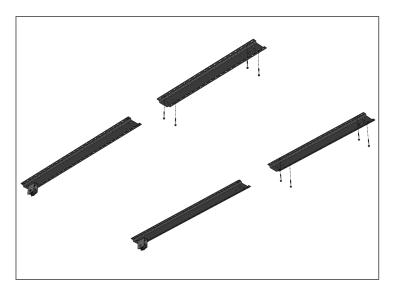


Mount one assembled Ceiling Mount Bracket where you want one side of the ONRAX unit, using the pilot holes drilled previously. Position the Pulley Holder opposite from the side you want the motor. The Ceiling Mount Bracket is mounted with four (4) 1/4" x 2.5" Lag Bolts.



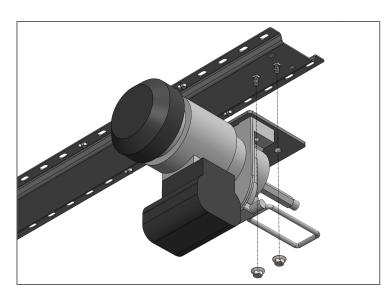
Mount the second Ceiling Bracket 41 5/8" inches away from and parallel to the first Ceiling Bracket using the previously drilled pilot holes. The Ceiling Mount Bracket is mounted with four (4) 1/4" x 2.5" Lag Bolts.

23)

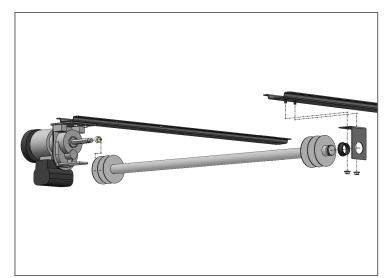


Mount the last two Ceiling Brackets using the previously drilled pilot holes with the Carriage Bolts furthest from the pulleys. The Brackets should be mounted 41 5/8" apart from each other with the ends 12" away from the previously mounted ceiling brackets, using four (4) 1/4" x 2.5" Lag Bolts in each Bracket. Reference the layout diagram.

24)



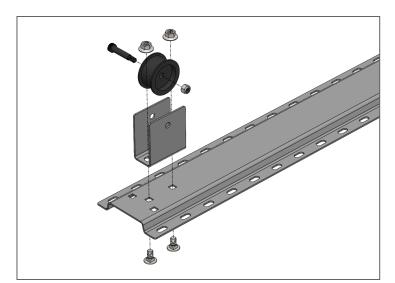
The Motor should have the mounting plate already attached to it. Lift the Motor and attach it to the two (2) Carriage Bolts on one end of the main Ceiling Brackets using two (2) Flanged Locknuts. The Motor needs to be in the front right corner or back left corner, and the Motor shaft should be positioned towards the other Ceiling Mount. Reference the layout diagram.



Mount the Driveshaft and Shaft
Receiver. Place the Spacer onto the
hex motor shaft. Lift up the Driveshaft
and slip it onto the hex motor shaft.
At the other end of the Driveshaft
slide the Shaft Receiver over the end.
Then bolt the Shaft Receiver to the
Ceiling Bracket with two (2) Flanged
Locknuts on the two (2) Carriage
Bolts that you placed into the Ceiling
Bracket prior to installation of the
Ceiling Bracket on the ceiling.

SKIP to Step 33

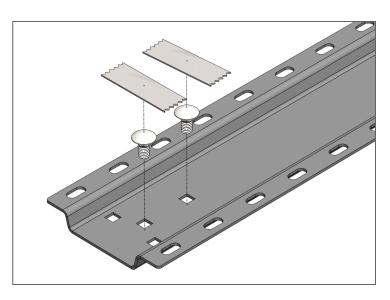
26)



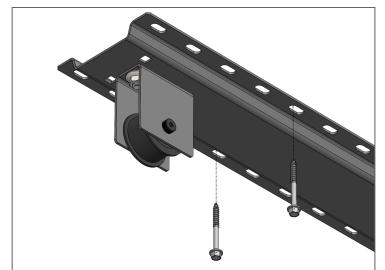
#### For Layout AS48-D

Take two Ceiling Brackets and mount a U shaped Pulley Wheel Holder at one end. Use two (2) 3/8"-16 x 3/4" Carriage Bolts and two (2) 3/8"-16 Flanged Locknuts to mount each holder. The Pulley Wheel Holders will be mounted so that Wheel will be parallel to the bracket. Mount the Pulley Wheel into the Holder using one (1) 3/8" x 1.5" Shoulder Bolt and one (1) 5/16" Locknut. Repeat this process for the other Ceiling Bracket.

27)

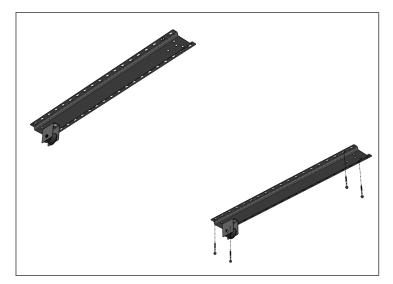


On the other two Ceiling Brackets, insert two (2) 3/8" x 3/4" Carriage Bolts in one end. Use the same hole locations that were used on the first Bracket. Apply some tape to the back of the Carriage Bolts to aid in installation and to keep them from getting knocked out when attaching the parts to them. You should have two pairs of Ceilings Brackets, two with Pulley Wheel Holders and two with Carriage Bolts.



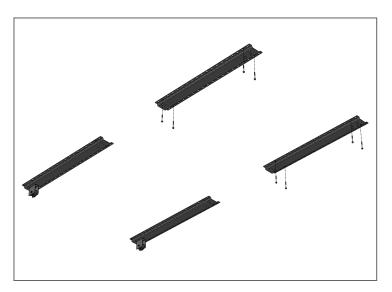
Mount one assembled Ceiling Mount Bracket where you want one side of the ONRAX unit, using the pilot holes drilled previously. Position the Pulley Holder opposite from the side you want the Motor. The Ceiling Mount Bracket is mounted with four (4) 1/4" x 2.5" Lag Bolts.

29)

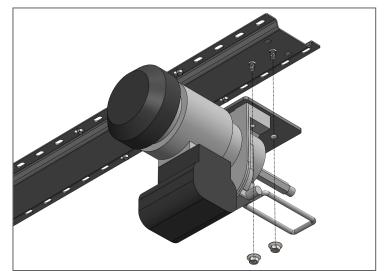


Mount the second Ceiling Bracket 41 5/8" inches away from and parallel to the first Ceiling Bracket using the previously drilled pilot holes. The Ceiling Mount Bracket is mounted with four (4) 1/4" x 2.5" Lag Bolts.

30)

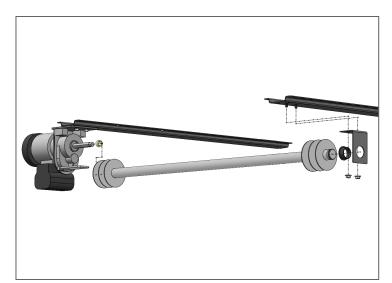


Mount the last two Ceiling Brackets using the previously drilled pilot holes with the Carriage Bolts furthest from the Pulleys. The Brackets should be mounted 41 5/8" apart from each other with the ends 24" away from the previously mounted ceiling brackets, using four (4) 1/4" x 2.5" Lag Bolts in each Bracket. Reference the layout diagram.



The Motor should have the mounting plate already attached to it. Lift the Motor and attach it to the two (2) Carriage Bolts on one end of the main Ceiling Brackets using two (2) Flanged Locknuts. The Motor needs to be in the front right corner or back left corner, and the Motor shaft should be positioned towards the other Ceiling Mount. Reference the layout diagram.

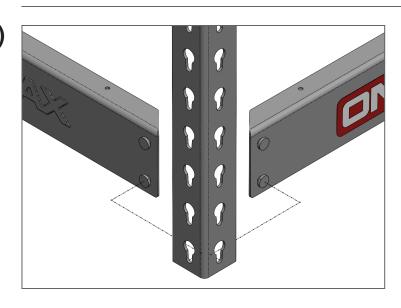
32)



Mount the Driveshaft and Shaft Receiver. Place the Spacer onto the hex motor shaft. Lift up the Driveshaft and slip it onto the hex motor shaft. At the other end of the Driveshaft slide the Shaft Receiver over the end. Then bolt the Shaft Receiver to the Ceiling Bracket with two (2) Flanged Locknuts on the two (2) Carriage Bolts that you placed into the Ceiling Bracket prior to installation of the Ceiling Bracket on the ceiling.

#### **CONTINUE to Step 33**

33)

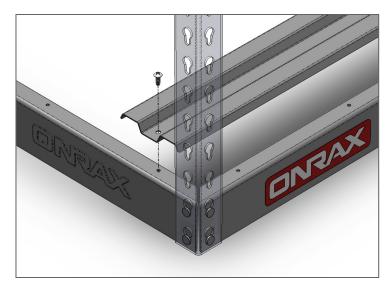


Build the bottom of the unit. Lay out the Cross Beams on the floor beneath the Ceiling Brackets, in the same orientation. Starting at one corner, insert the rivet buttons on the Cross Beams into the Riser post holes orienting the 1" flange with holes on the top. The rivet buttons go into the keyholes on the Risers. Tap down with rubber mallet to seat the Beams into the upright Risers. The rivet buttons should go all the way to the bottom of the keyholes.



Repeat the corner assembly for each of the three other corners. You should end up with the four Risers connected by the four Cross Beams.

35)



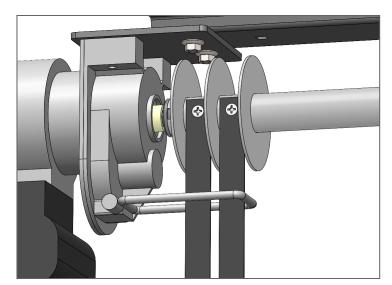
Place an Enduro-Deck® Panel, aligning the holes in the panels with the holes in the frame Cross Beams. Be sure that the Panels are parallel and perpendicular with the frame Cross Beams. Use two (2) 10-24 x 3/8" Screws to secure the Enduro-Deck Panel to the frame.

36)



Repeat Step 35 for the thirteen (13) remaining Enduro-Deck® Panels.

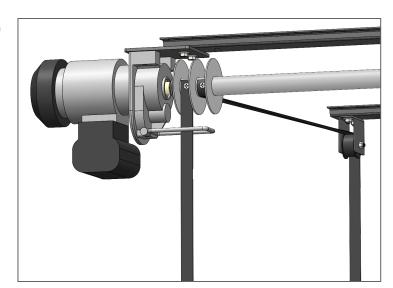
Check to make sure that the Cross Beams are still locked into the Risers. If necessary, use the rubber mallet to reseat the Beams in the Risers.



Unspool all straps off the spools until you can see all four attachment points. Plug in and run the motor down until the short spools completely unspool and you can see the attachment points. Manually unspool the longer straps until you can see all four attachment points.

You must manually unspool the longer spools until all the strap is unrolled from each spool and you can see all four attachment points.

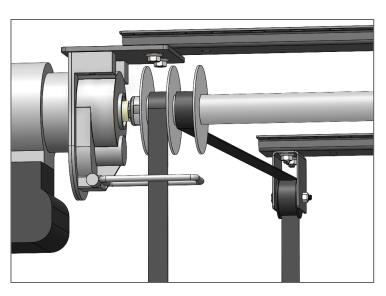
38)



Route the two inner long straps to the other end of the unit and over the Pulley Wheels. The shorter outside straps drop straight down.

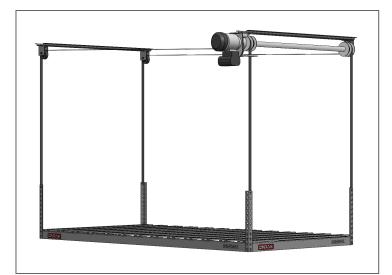
Only the strap closest to the motor should go down through the Over-Travel Switch.

39)



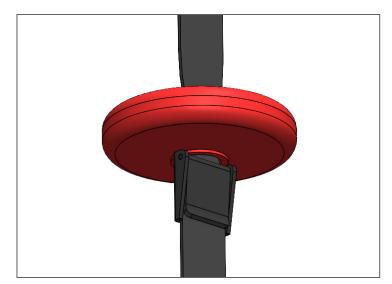
Run the motor in the up direction to attain five (5) wraps of strap around each spool. The number of wraps should be equal on each spool.

Be sure that at least 5 wraps are attained around the spools. Without the proper number of wraps, the straps may be damaged when attempting to lift the platform.



Move the lower frame work under the installed ceiling unit if it is not already there.

41)



On the strap directly below the Motor, slide the strap through the donut-shaped Over-Travel Switch Activator. Then slide the Clamp Buckle on the strap with the clamp towards the donut. Slide this up about 2 feet above the platform Riser and clamp in place.

42)



Attach the straps to the Risers, starting with the straps on the ceiling bracket with the pulley wheels first.

For each strap, put one flat Metal Slide on each strap. Weave the strap from the outside of the Slide to the inside and then back to the outside of the Slide. Adjust the Slide so it is approximately 18" from the end of the strap.



Run the strap through the 3rd open keyhole from the bottom (starting from the inside) then back through the 2nd open keyhole.

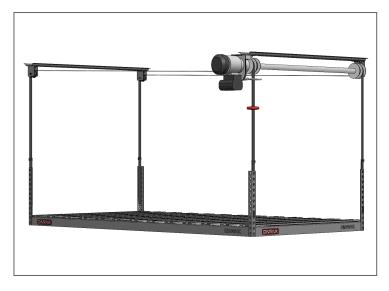
44)



Run the strap up through the back of the Metal Slide.

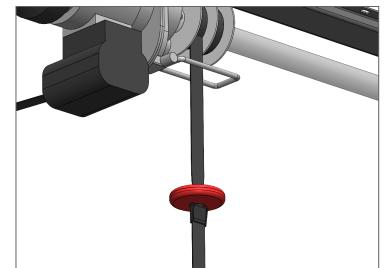
Repeat steps 42-44 for the remaining corners.

45)



Raise the platform 2-3 feet off the ground by running the Motor in the up direction. With the platform off the ground, press down firmly on each corner. This will remove any slack in the straps. Now place the Level on the platform and adjust each Strap so that the Platform is level.

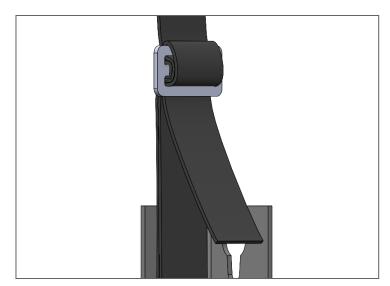
After the unit is run up and down several times or has weight applied it may need to be adjusted.



Slide the Switch Activator into position so it hits the Over-Travel Switch before items on the platform would hit the ceiling, and secure with the Clamp Buckle. As you load items onto the platform, make sure to adjust the Switch Activator to prevent items from hitting the ceiling.

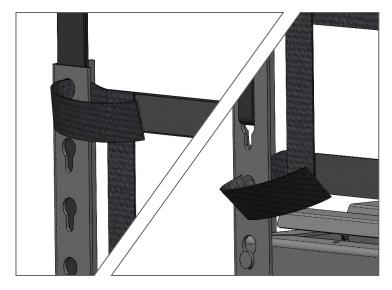
The Over-Travel Switch is an emergency device. Take care to stop the unit before the Switch is engaged.

47)



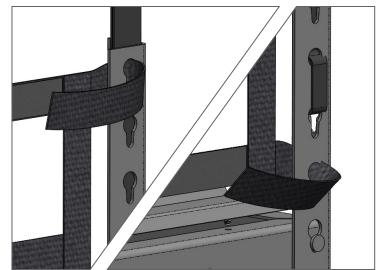
After the platform has been leveled the ends of the straps should then be ran back down through the Metal Slide to prevent any chance of slippage.

48)



Attach the Cargo Nets to each side of the Platform.

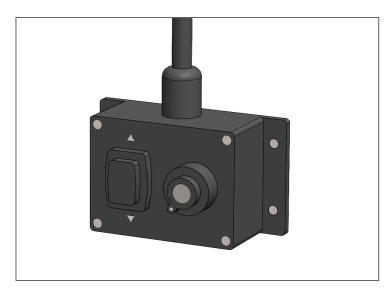
For each Net, attach the top and bottom of one side by passing the hook-and-loop tails through the top and bottom keyhole slots. Secure them back against the hook-and-loop patch on the webbing net face.



On the opposite end, attach the top and bottom of the other side by passing the hook-and-loop tails through the top and bottom keyhole slots. Secure them back against the hook-and-loop patch on the webbing net face.

Repeat Steps 48 & 49 for each side of the platform.

50)

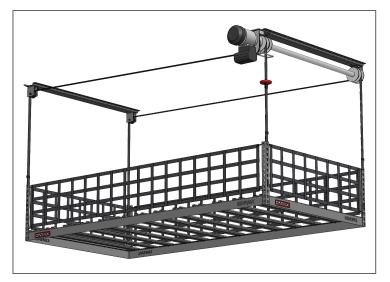


Mount the Control Box in a location so that the operator is not under the unit when it is in motion. Use the four (4) Anchors to do so.

51)



Route the control cord and power cord to prevent interference with the operation of the unit. Secure the cords with Small Cable Ties and Adhesive Cable Tie Mounts.



Congratulations, your ONRAX Ascension AS48 Motorized Storage 4'x8' Platform is now complete.

If the platform becomes unlevel after a few lift cycles you can relevel the platform by adjusting each corner strap.

Always take care to have all persons or animals away from and not underneath the Onrax platform during raising and lowering.

24" Centers 50" 24" **2-Bracket Layout Options for AS48**Drive Shaft Perpendicular To Joists 2 x 50" Brackets (View From Below) "<u>\$</u>89 MOTOR AS48-A 16" Centers 16 50" "<u>£</u>88

# 74" 24" Centers 41 5... 52 3 ... ..09 100 L ..9 L 16" Centers 41 5... 523" ..09 ..00 L

**AS48-B**4-Bracket Layout Options for AS48
Drive Shaft Parallel To Joists
4 x 50" Brackets
(View From Below)

MOTOR 74.. 24" Centers 52 3 ... 41 5 ... 523" 41 5 ... 15.. MOTOR 185 ..09 ..00 L MOTOR ..9 L 16" Centers 52 3 ... 41 5 ... 41 5 ... 523" 185 ..09 15.. 100 L

**AS48-C 4-Bracket Layout Options for AS48**Drive Shaft Parallel To Joists
2 x 50" Brackets, 2 x 38" Brackets
(View From Below)

74.. 24" Centers 52 8 ... 415... 415... 52 3 .. 0 0 0 0 0 0 MOTOR 185 1.85 74.. ..00 L MOTOR ..9 L 16" Centers 528" 415... 528" 415... MOTOR 186 74.. 186 100 L

# **AS48-D 4-Bracket Layout Options for AS48**Drive Shaft Parallel To Joists 4 x 38" Brackets (View From Below)