

WCP-EX-0004 - Application Guide (Rev 1)

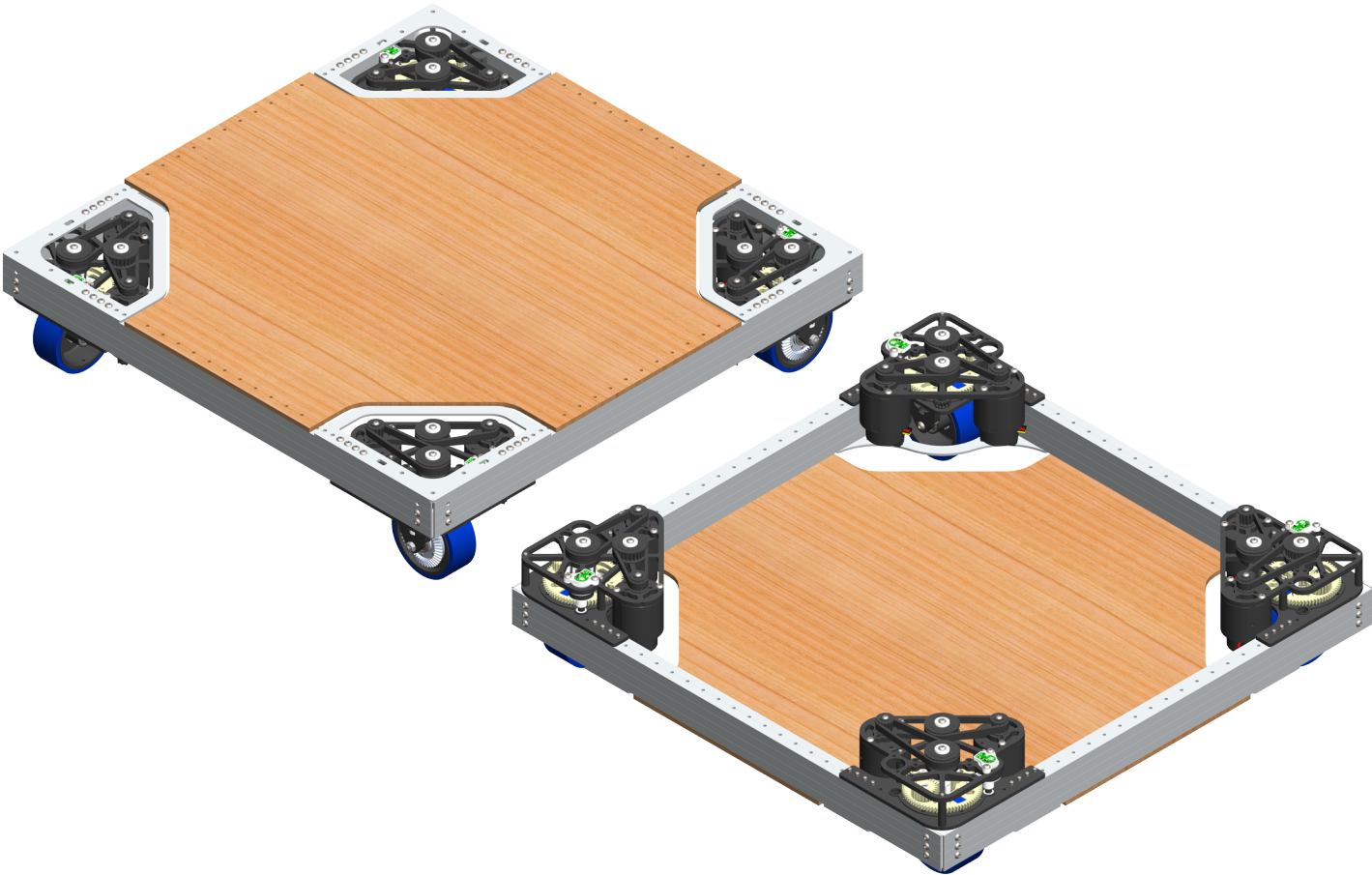




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What is the Swerve X (Corner Mount, Flipped)?

One of the four possible configurations of WCP's Swerve X, the Flipped Corner Mount is the new style of swerve. This mounting style allows for more space inside the drivetrain when compared to the Flipped Tube Mount Swerve, and also provides more vertical space when compared to the Corner Mount Swerve.

Notable features:

- Takes up less space inside the frame when compared to other Swerve X configurations.
- Leaves more room for mechanisms.
- Has the option for low center of gravity or high ground clearance.
- Much shorter module, allowing mechanisms to be easily mounted over it.



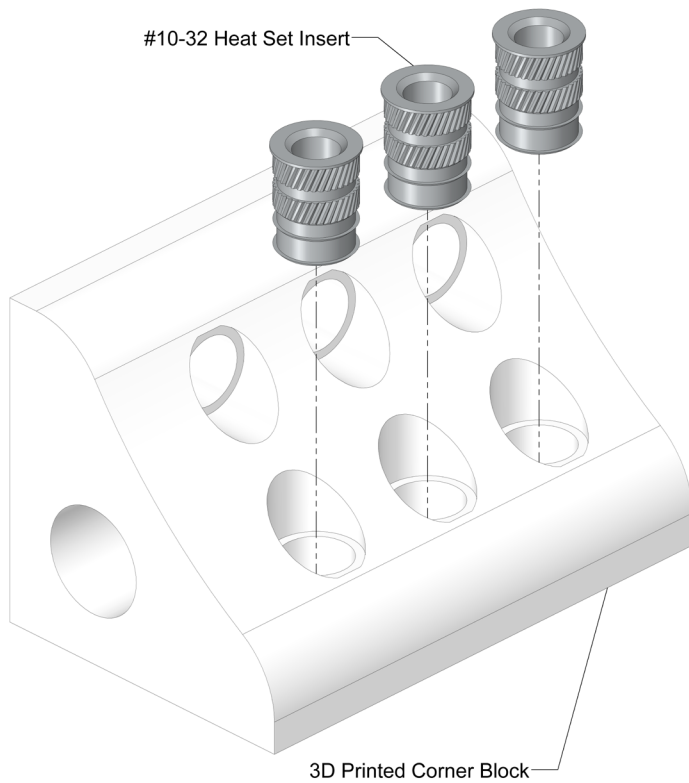
Corner Block Assembly

Install the heat set inserts into the appropriate corner block. Make sure that the inserts are straight.

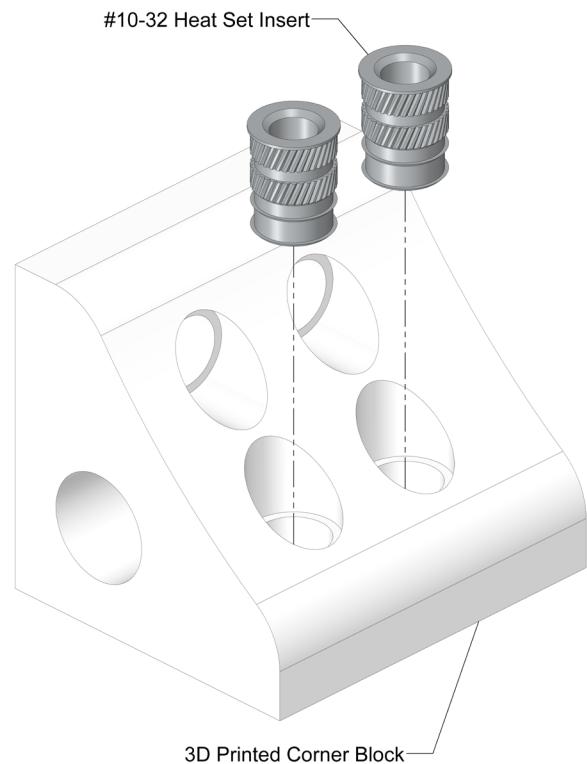
If you are using the Bottom Mounting Style, the 1-3/8" L Corner Block will be used. If you are using the Top Mounting Style, the 1-7/8" L Corner Block will be used.

Repeat this step for all holes in the corner block.

1-7/8" L Corner Block



1-3/8" L Corner Block



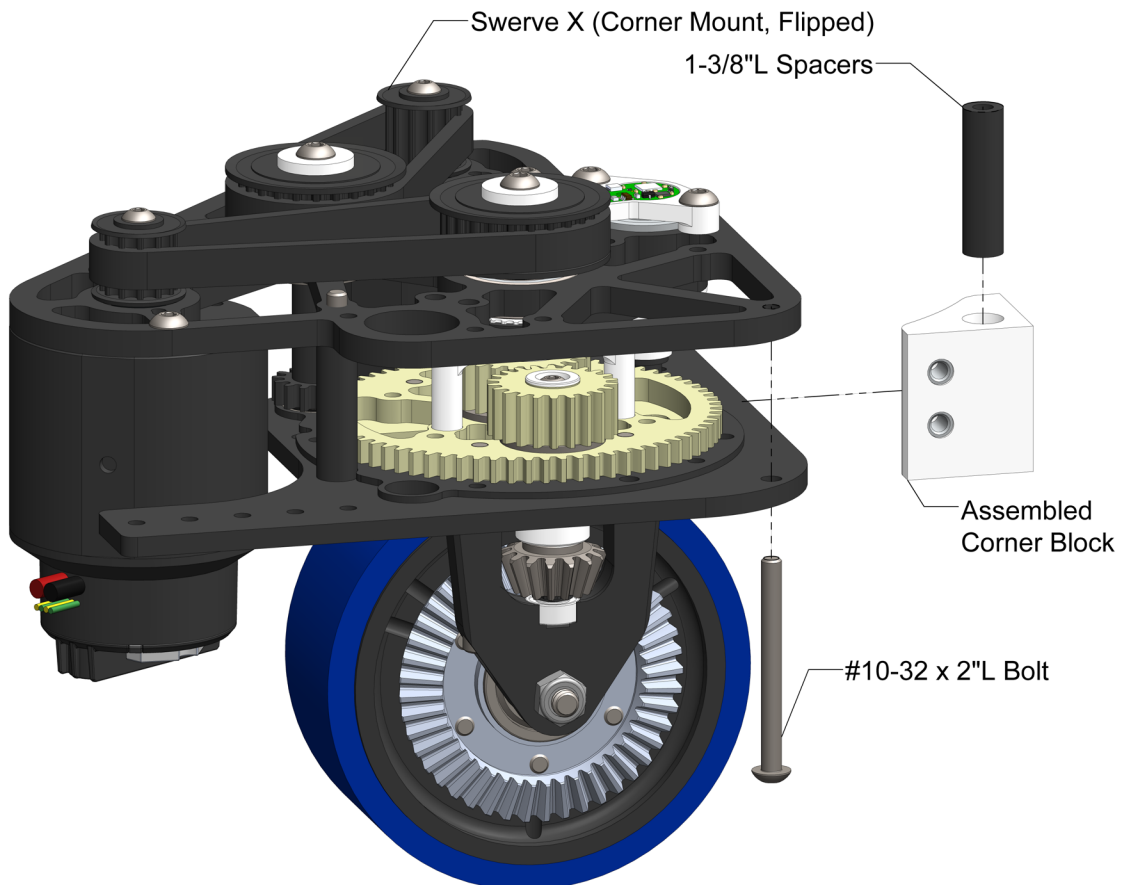


Corner Block Installation

In order to install the Corner Block, the three bolts holding the top and bottom Swerve X Plates together must be loosened. The bolt and spacer in the corner shown in the image below must be removed entirely. Slide the spacer into the Corner Block, then place the Corner Block + Spacer back into the swerve. Retighten all bolts.

Note: Make sure the Corner Block is assembled in the correct orientation shown in the image below, with the heat set inserts sitting higher on the module.

Note: If you are using the Top Mounting style, this step can be skipped.



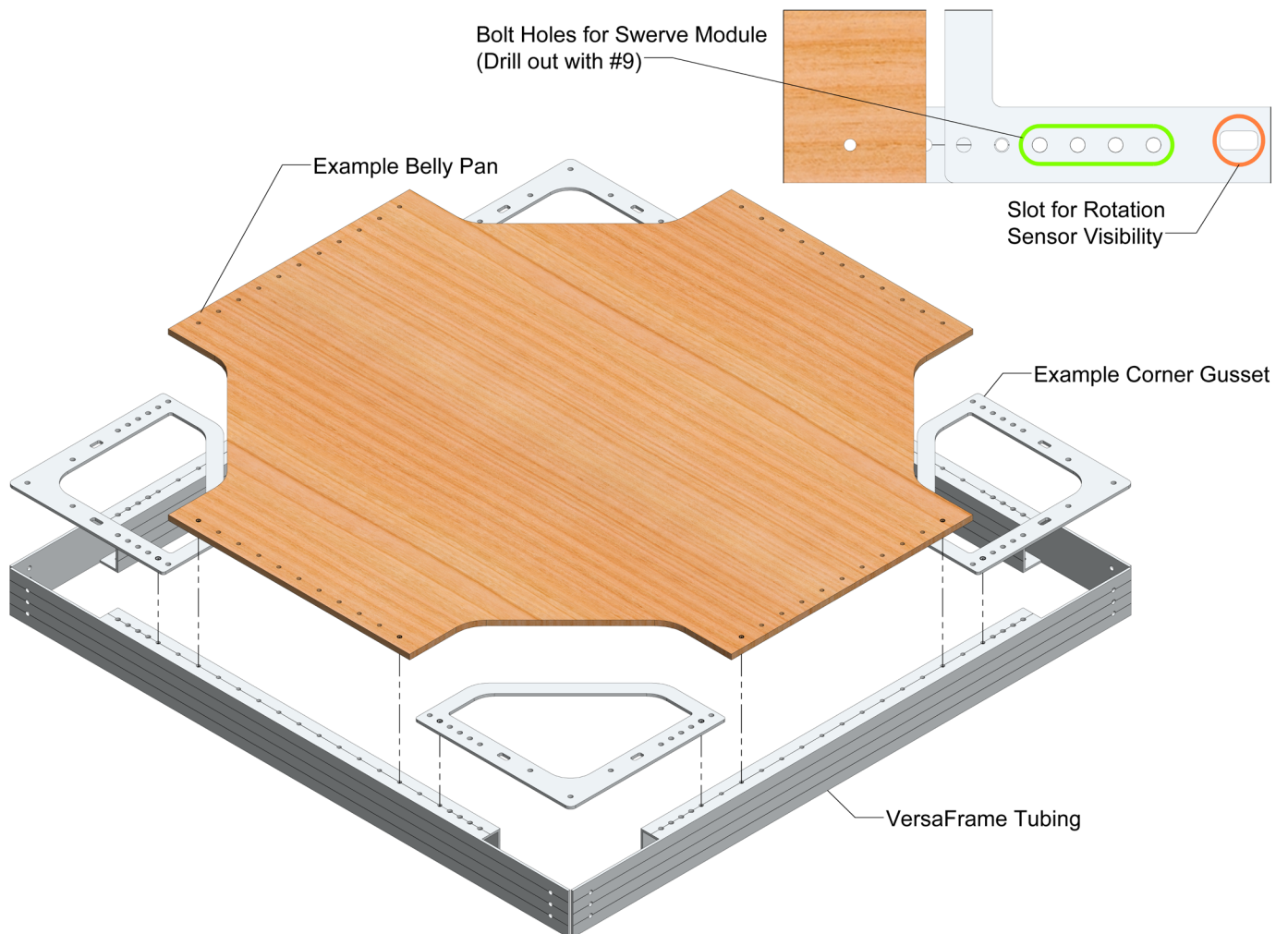


Bottom Mount Frame Assembly

The gussets and belly pan must be installed on the opposite side of the tube from the swerve module.

The gussets and belly pan can be installed using either rivets or bolts as desired.

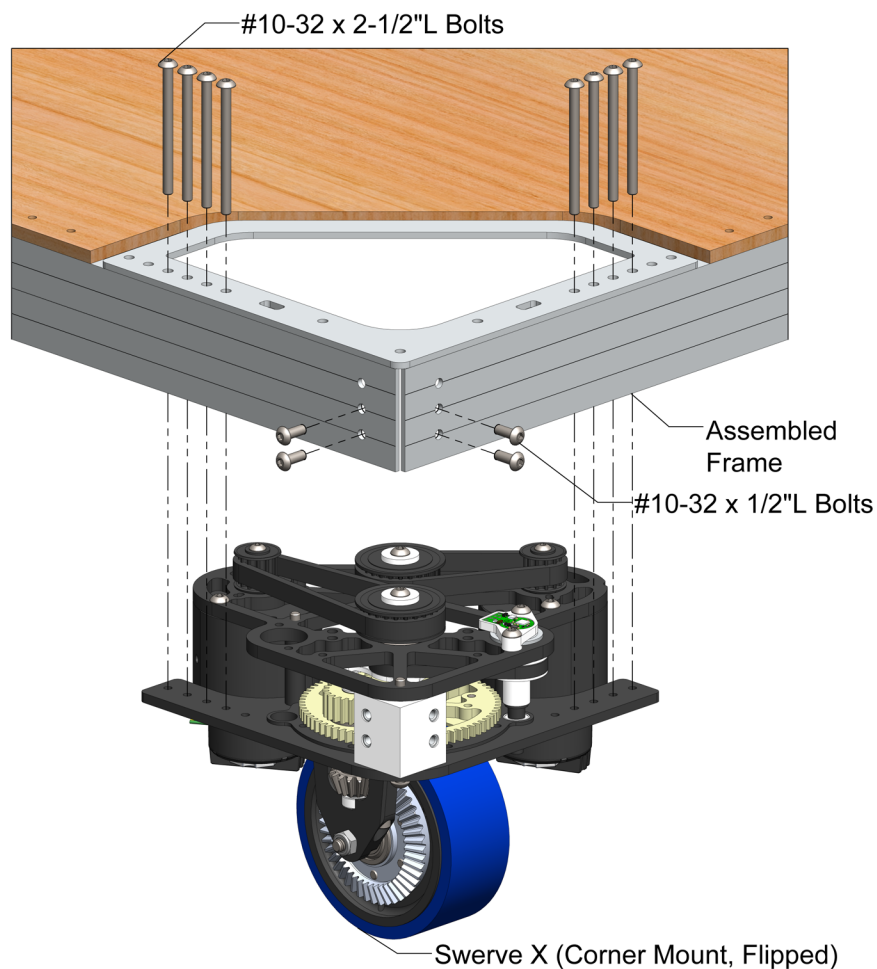
Note: It is recommended to use a gusset on the opposite side of the tube from the swerve module when using the Flipped Corner configuration.





Bottom Mount Swerve Module Installation

The module must be installed from the bottom of the frame. Thread in four #10-32 x 1/2"L bolts from the outside into the Corner Block.

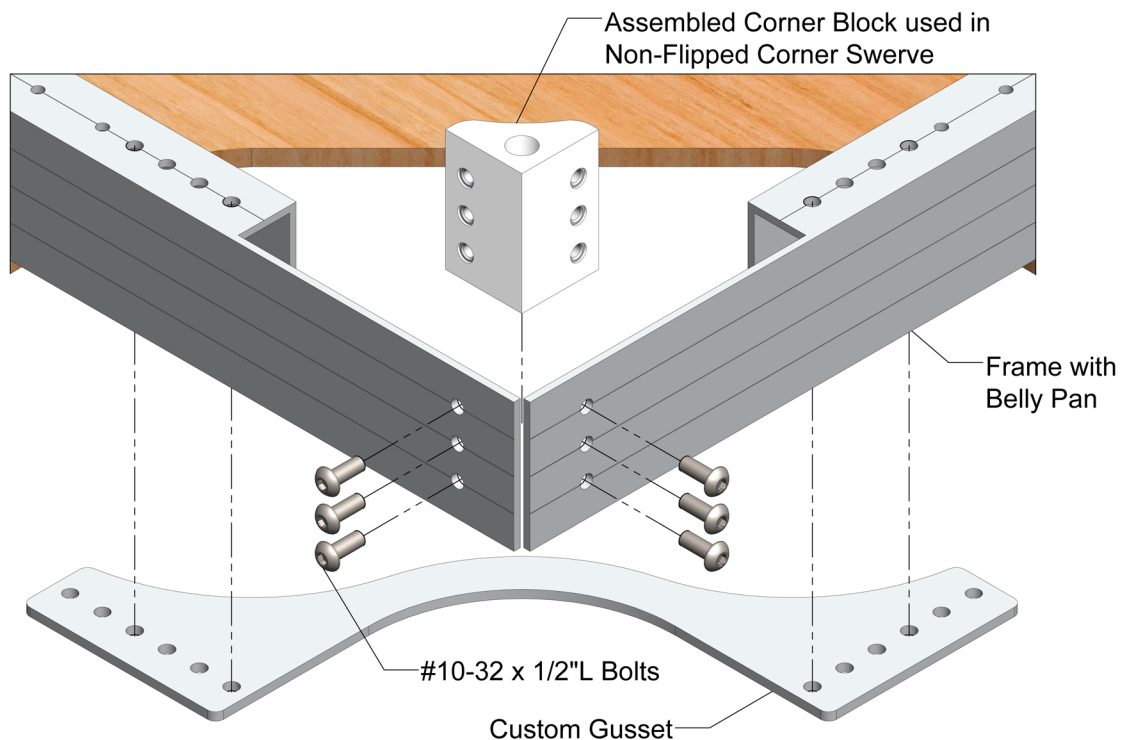




Top Mount Frame Assembly

The 1-7/8" L Corner Block will be used for this step. Instead of being installed in the Swerve Module, it will be installed directly into the frame.

Note: The gusset and belly pan still must be installed on the opposite side of the tube from the Swerve Module, regardless of mounting style.



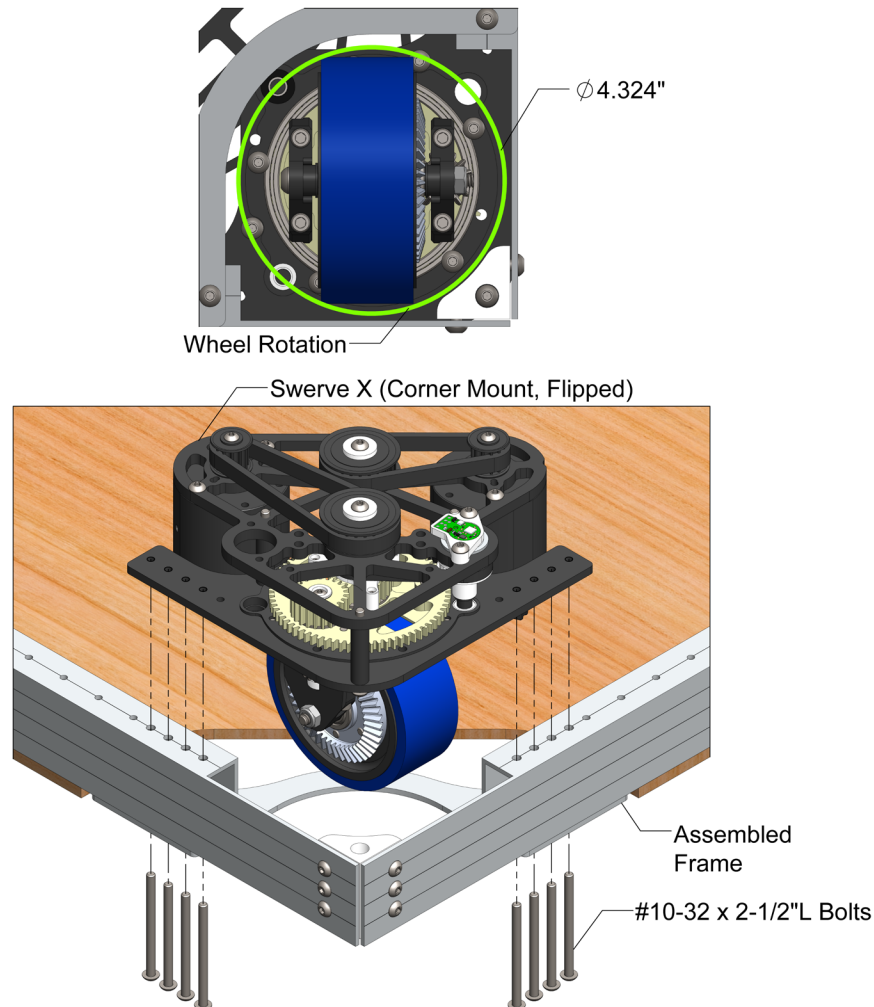


Top Mount Swerve Module Installation

The Swerve Module will be installed from the top of the frame for this configuration. If you are assembling your drivetrain with gussets on the corners, be sure that it clears the radius of the wheel. In the images below, the example gusset and belly pan used for this guide clear the wheel by about 1/4".

Note: The radius for the wheels rotation is the same across all configurations of the Swerve X.

Note: If you design the belly pan/gusset to be too close to the module, this may cause issues with removing the wheel.





Revision Table

Revision Date	Revision #	Description
11/19/2021	1.0	First revision created.