



Installing Module - Frame Assembly Frame Assembly

Written By: Robert Kirk





TOOLS:

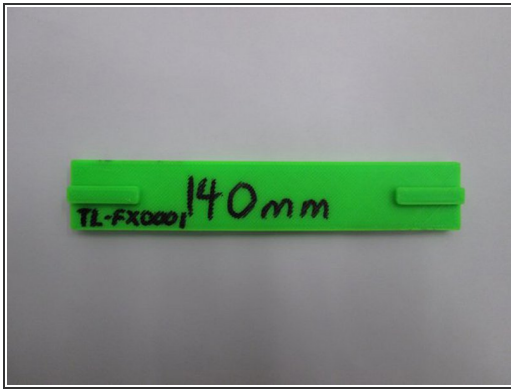
- [TL-FX0001, 140mm Spacer](#) (1)
- [TL-FX0009](#) (1)
- [TL-FX0021, 48mm Spacer](#) (1)
- [TL-FX0016](#) (1)
- [4mm Allen Driver](#) (1)



PARTS:

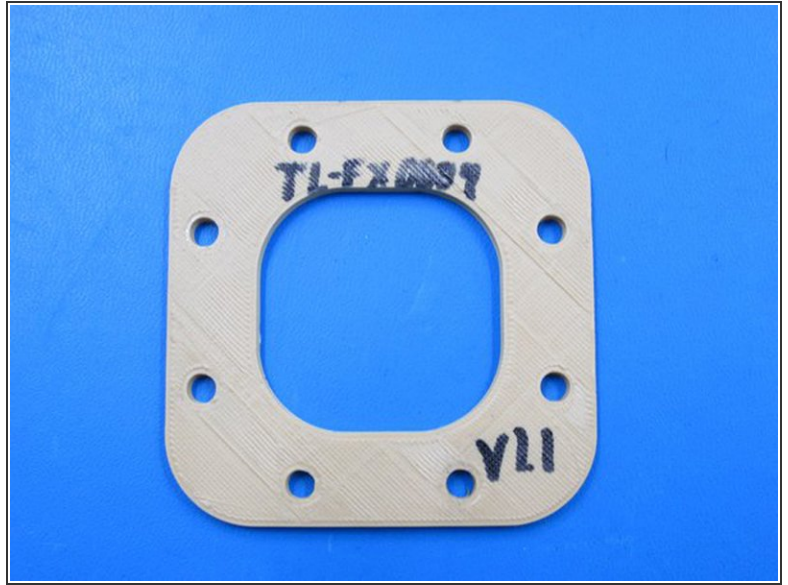
- [Z top flat](#) (1)
- [Z top flat side](#) (1)
- [Frame Connector](#) (1)
- [Name Plate](#) (1)
- [Y Mount chassis](#) (1)
- [Z motor mounts, Left and Right](#) (1)
- [Spool Arm](#) (1)
- [Feed tube holder](#) (1)
- [Extrusion, 500mm Black, not tapped](#) (1)
- [Extrusion, 500mm Black, tapped on one end](#) (1)
- [M5 x 10 SHCS](#) (1)
- [M5 x 14 SHCS](#) (1)
- [M5 Washer](#) (1)
- [M5 T-nuts](#) (1)

Step 1 — Frame Assembly



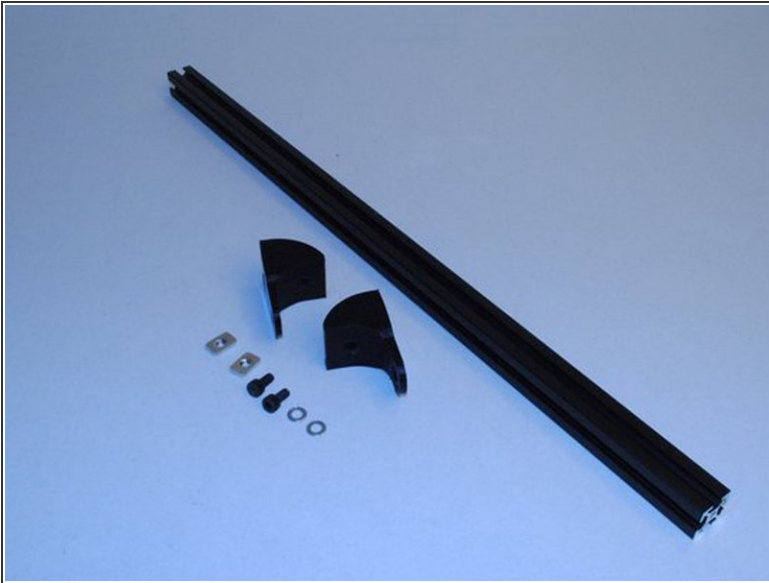
- GATHER PARTS AND TOOLS FOR FRAME ASSEMBLY
- Components: Z top flat Z top flat side Frame connector Name Plate Y mount chassis Z motor mounts, Left and Right Spool Arm
- Feed tube holder Extrusion, 500mm Black, not tapped Extrusion, 500mm Black, tapped on one end M5 x 10 SHCS M5 x 14 SHCS M5 Washer M5 T-nuts
- Tools: TL-FX0001, 140mm Spacer TL-FX0009, TL-FX0021, 48mm Spacer TL-FX0016 4mm Allen Driver
- Photo 1: TL-FX0001, 140mm Spacer
- Photo 2 - TL-FX0016
- Photo 3 - TL-FX0021, 48mm Spacer

Step 2



- GATHER TOOLS (continued)
- 4 mm Allen Driver
- TL-FX0009

Step 3



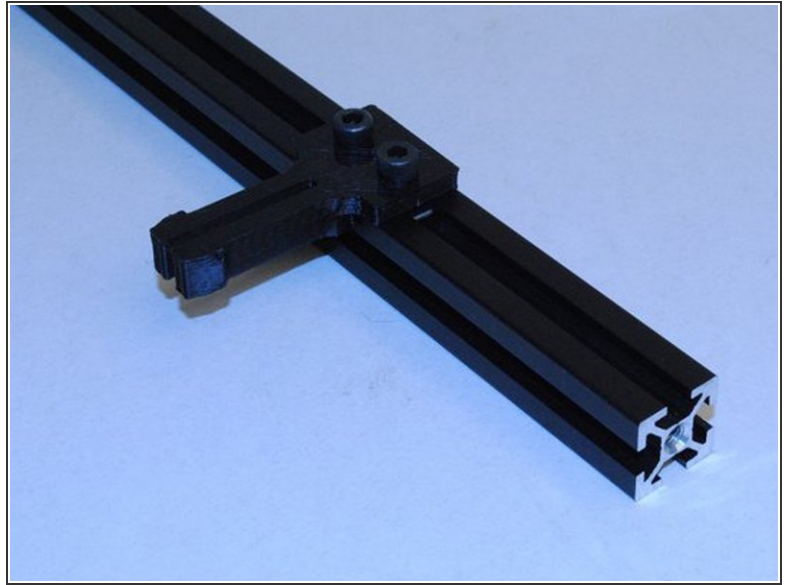
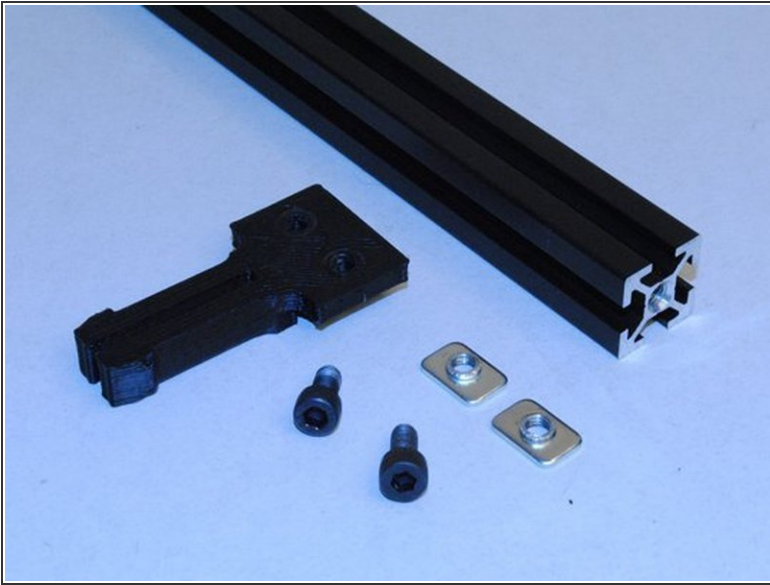
- INSTALL Y MOUNT CHASSIS ONTO EXTRUSIONS - Build 2 of these assemblies.
- Install two Y mount chassis onto Extrusion with no taps using M5 x 10 SHCS, M5 Washers and M5 T-nuts.
- Take note of the direction of the Y mounts, the tall flat sides must face each other.
- The location is not important at this point. Snug them down just enough to not slide around during the rest of the assembly.
- Have you assembled 2 of these?

Step 4



- INSTALL THE SPOOL ARM
- New line.Install 1x M8 nut into the Inner spool mount.
- Use 1x M5 x 14 SHCS and M5 Washer to bolt on the Spool Arm.
- Take note of the tapped end of the extrusion.
- Set the location of the arm using the TL-FX0011 fixture.

Step 5



- INSTALL FEED TUBE SUPPORT
- Slide 2x M5 T-nuts into the slot on the bottom right extrusion.
- Install the Feet tube support with 2x M5 x 10mm SHCS.
- Take note of tapped end of extrusion.

Step 6



- INSTALL NAME PLATE
- Using the 2x M5 T-nuts in an extrusion that is not tapped, install the name plate with 2x M5 x 10 SHCS and M5 Washers.

Step 7



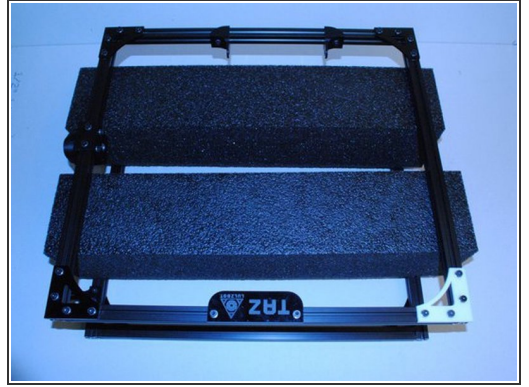
- ASSEMBLE THE FRONT FAME SQUARE
- There is a tapped extension at the top of both the right and left extrusions.
- Install 2 M5 t-nuts into the top of the name plate extrusion.
- Use Fixture TL-FX0009 in the upper left corner.
- Assemble using M5 x 10 SHCS, M5 Washers and M5 T-nuts.

Step 8



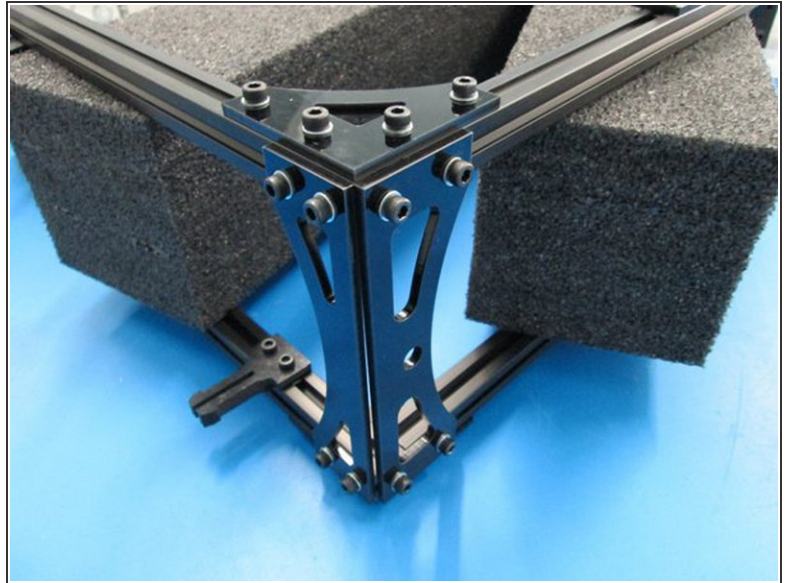
- ASSEMBLE THE BACK FRAME SQUARE
- There is a tapped extension at the top of both the right and left extrusions.
- Install 2x M5 t-nuts into the top of the upper extrusion.
- Assemble using M5 x 10 SHCS, M5 Washers and M5 T-nuts.

Step 9



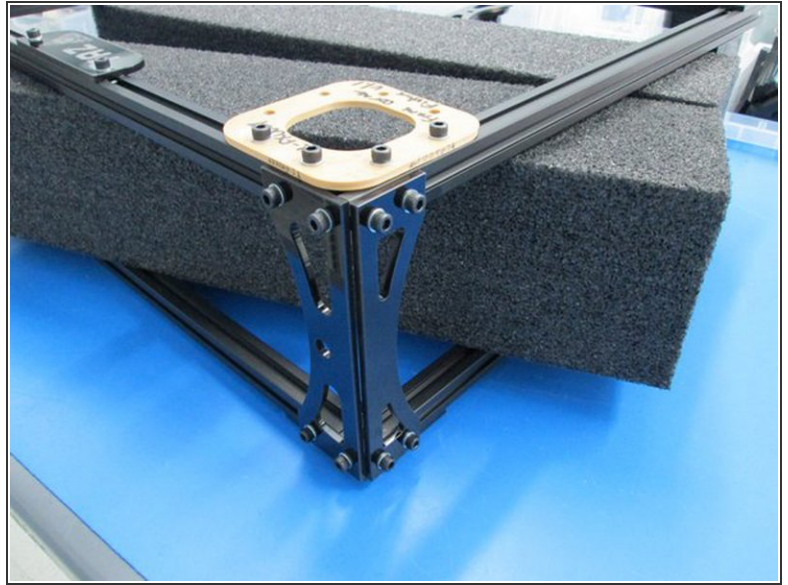
- PREPARE FRAME FOR CORNERS
- Lay the front and back frame squares together with the spacer foam.
- Photo - Lay down the back frame square as shown
- Photo 2 - Place foam spacers on back frame square
- Photo 3 - Lay the front frame square on the top

Step 10



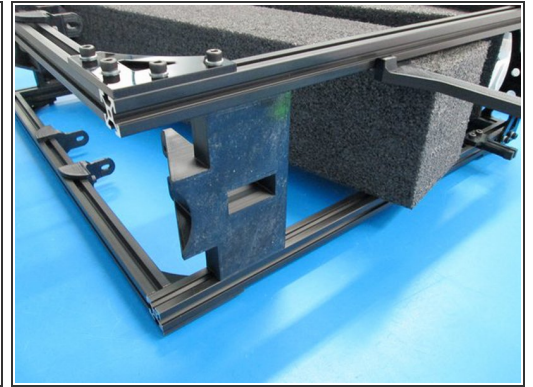
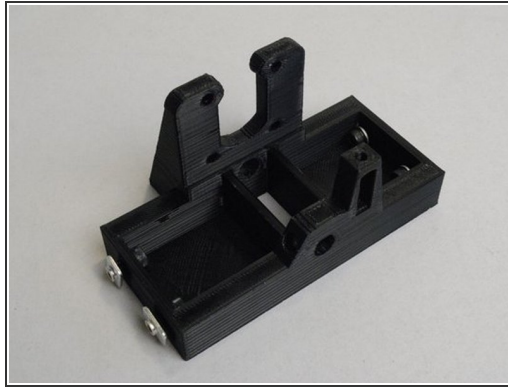
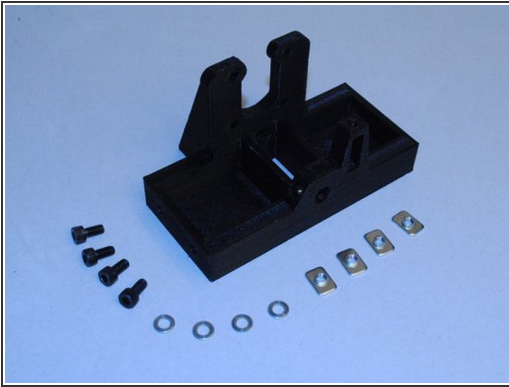
- INSTALL THE FIRST UPPER CORNER
- Install 4x M5 T-nuts.
- Assemble Z top flat and Z top flat side as shown with M5 x 10 SHCS and M5 washers.

Step 11



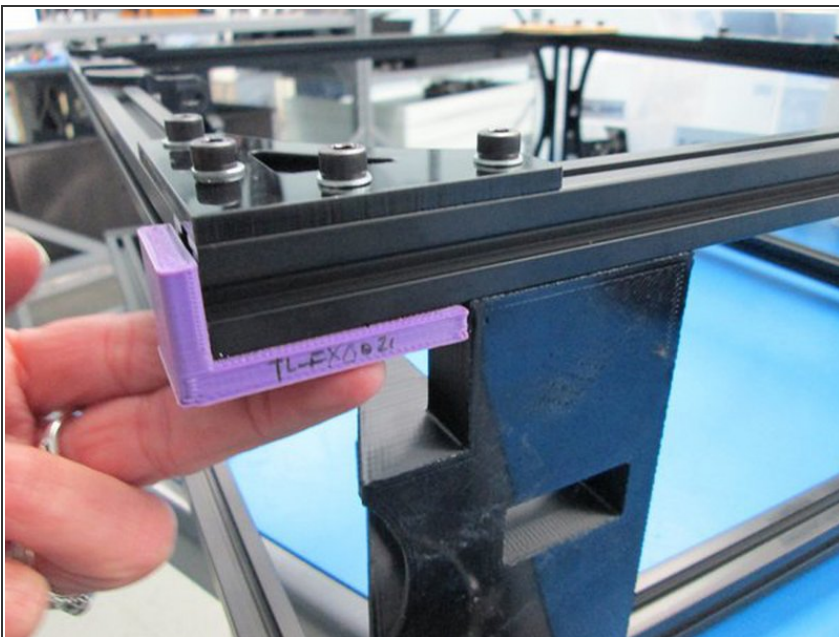
- INSTALL SECOND UPPER CORNER
- Install 4x M5 T-nuts.
- Assemble Z top flat and Z top flat side as shown with M5 x 10 SHCS and M5 washers.

Step 12



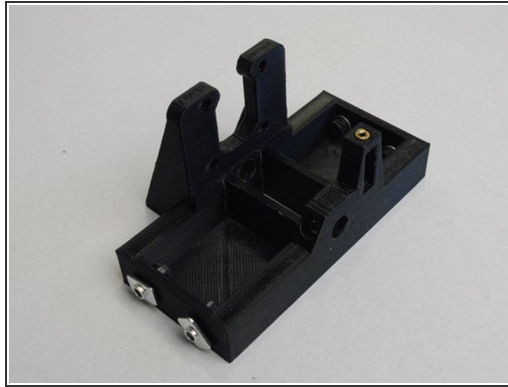
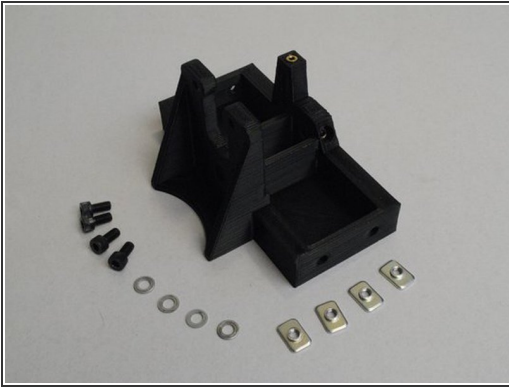
- INSTALL Z MOTOR MOUNT RIGHT
- Install 4x M5 x 10 SHCS, M5 Washers and M5 T-nuts into the Z motor mount right as shown.
- Slide the motor mount into the bottom of the frame and set it's height with the 48mm fixture.
- Photo 1 - Parts required to install the Z motor mount right
- Photo 2 - Hardware installed for insertion
- Photo 3 - Z motor mount right installed

Step 13



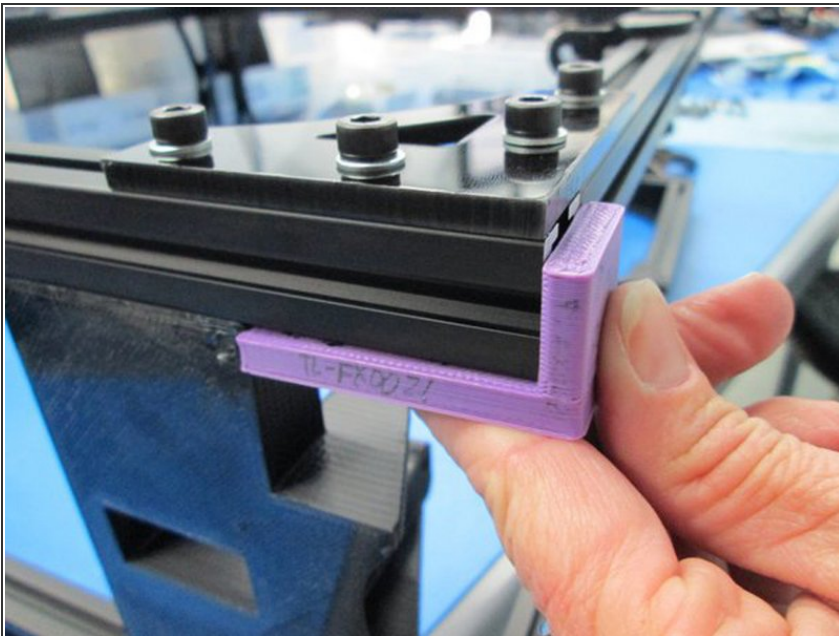
- INSTALL Z MOTOR MOUNT RIGHT (continued)
- Only check the height against the front part of the frame.
- Photo 1 - Check Z motor mount height

Step 14



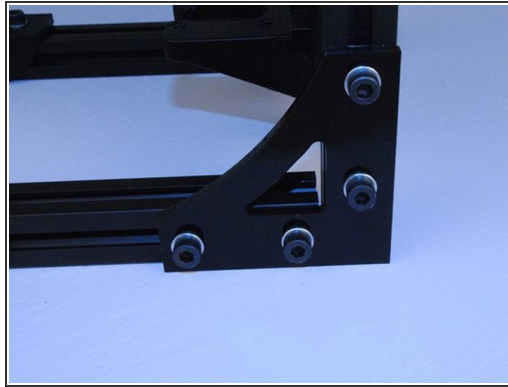
- INSTALL Z MOTOR MOUNT LEFT
- Install 4x M5 x 10 SHCS, M5 Washers and M5 T-nuts into the Z motor mount left as shown.
- Slide the motor mount into the bottom of the frame and set it's height with the 48mm fixture.

Step 15



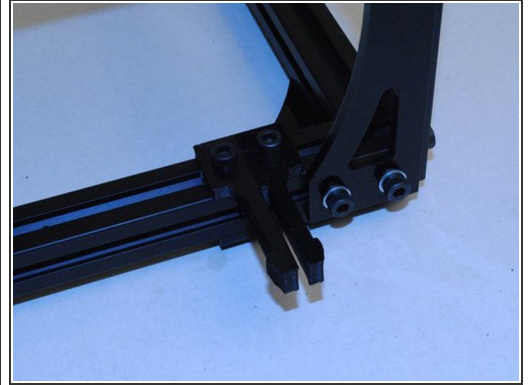
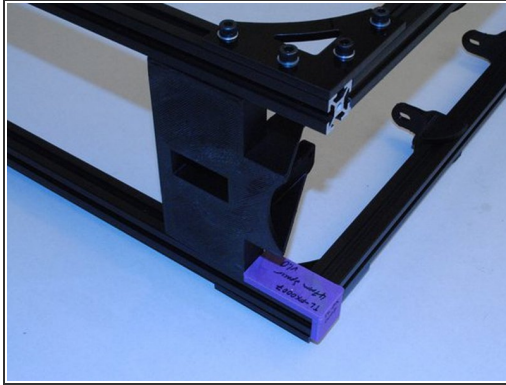
- INSTALL Z MOUNT MOUNT LEFT
(continued)

Step 16



- SQUARE FRAME, SET SPACING AND TORQUE BOLTS
- Set the frame up on a flat surface.
- Close any gaps there may be at the ends of the extrusions.
- Make sure all parts are straight on the assemble with edges flush with the extrusion.
- Photo 1 - Frame Assembly
- Photo 2 - Example of Extrusion gaps
- Photo 3 - Example of flush edges

Step 17



- SQUARE FRAME, SET SPACING AND TORQUE BOLTS (continued)
- Using fixtures, set the location of the Name plate, Z motor mounts and Feed tube holder.
- Tighten all the bolts at this point.
- Is the frame square?
- Are all the gaps at the ends of the extrusion closed?
- Are the edges of the parts flush with the extrusion?
- Are all the bolts tight? Are there 2x M5 T-nuts in the top front extrusion and 2x M5 T-nuts in the left front extrusion?
- Photo 1 - Set Name plate spacing and tighten bolts -- Photo 2 - Z Motor Mount height -- Photo 3 Location of Feed tube holder