

# How I Installed the Edgerider Wheels on my Gammill Classic Plus

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I'd been looking forward to installing these wheels since I tried them this year at MQX. This is my pictorial guide to their installation.

I needed:

- The wheel kit from Intellistitch
- Two "longer" 1/4" bolts (see step 12)
- English standard socket wrench. I used a regular one most of time time, but needed a smaller, low profile wrench to do the vertical channel lock adjustments.
- English standard hex wrenches (the hex wrenches that came with my machine are metric, and don't have the sizes I need for this.)
- Slip-joint pliers or a deep socket for the sensor mounting nut.
- Three business cards I picked up at vendor booths at MQX.

With a Plus machine, I thought it was impractical to install the carriage wheels with the machine in place. There are adjustments to make to the stitch regulator sensor that require better access.

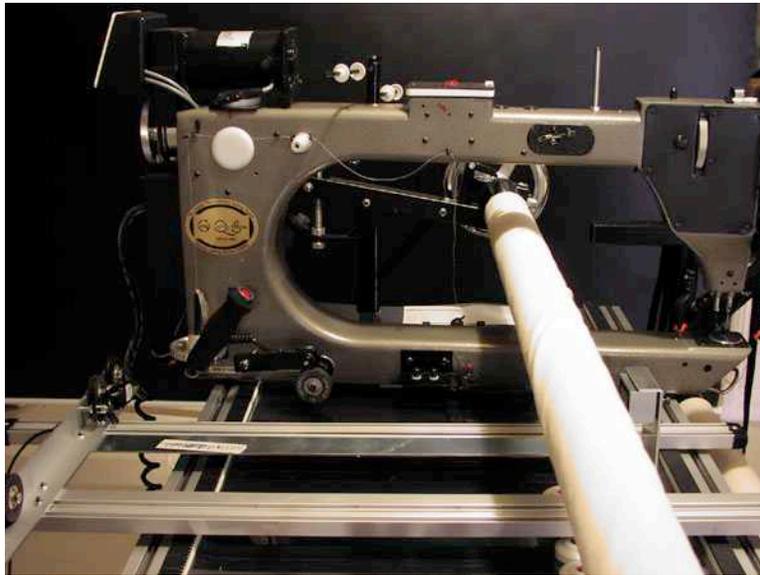
Before starting, I made sure the machine was off and unplugged from the mains.



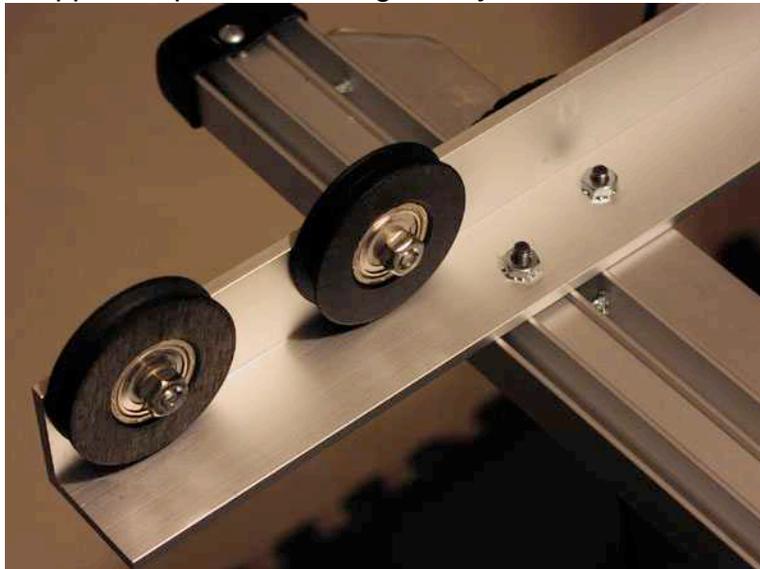
(1) I unplugged the vertical channel lock wire.



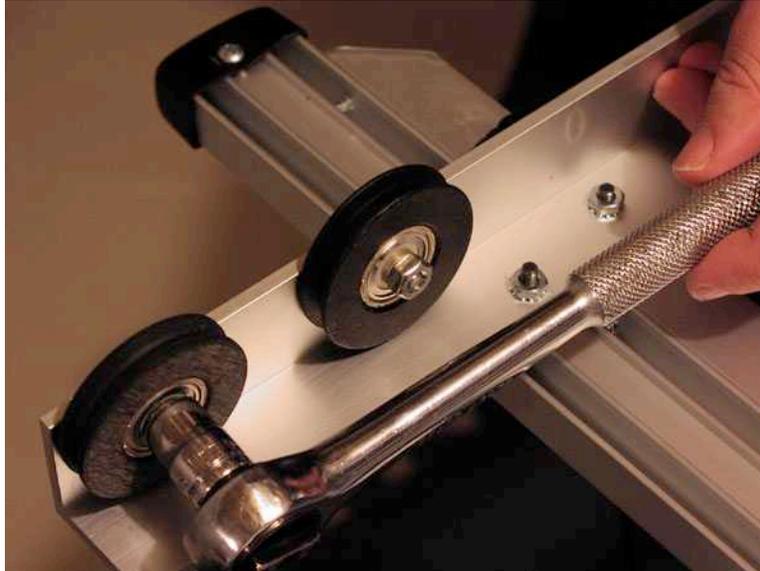
(2) I unplugged the stitch regulator sensor wire.



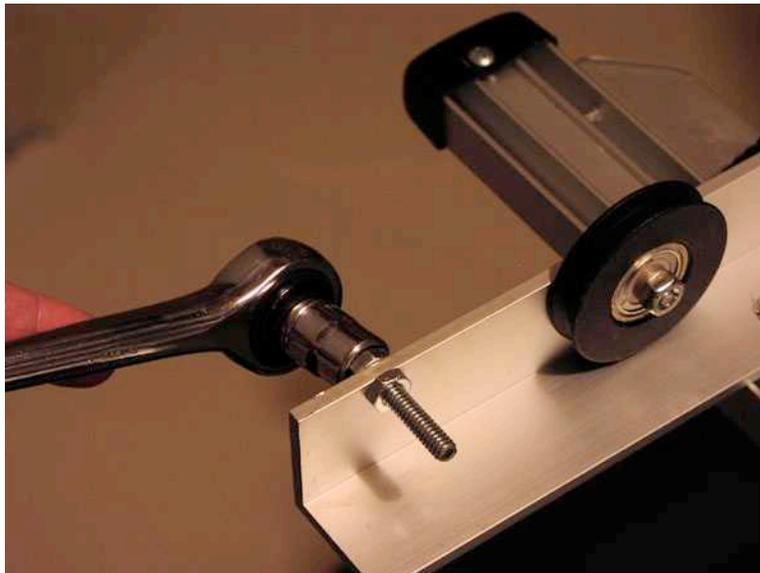
(3) With the help of a friend, I lifted the machine off the carriage (I used the control handles) and set it down on the table. I didn't need to remove the top beam. I did the whole installation with a quilt in place. I then removed the carriage and flipped it upside down to get easy access to the wheels.



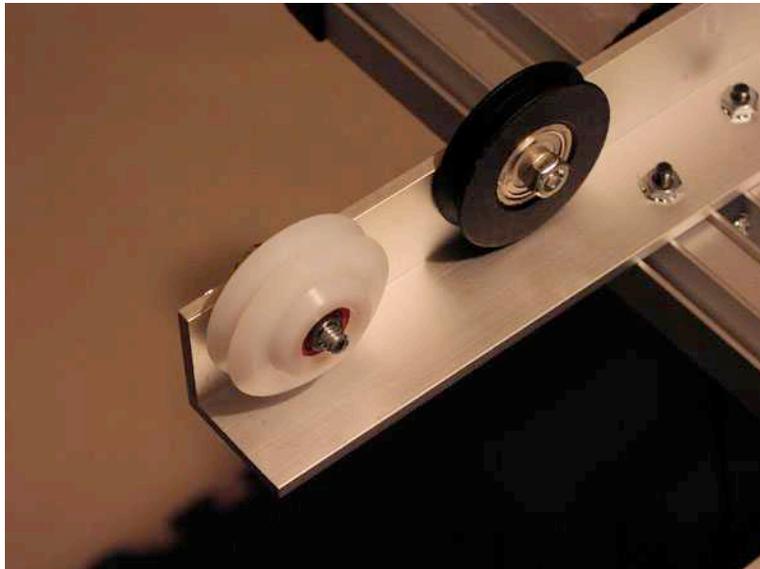
(4) These are the original rear wheels of my carriage, as they were factory installed.



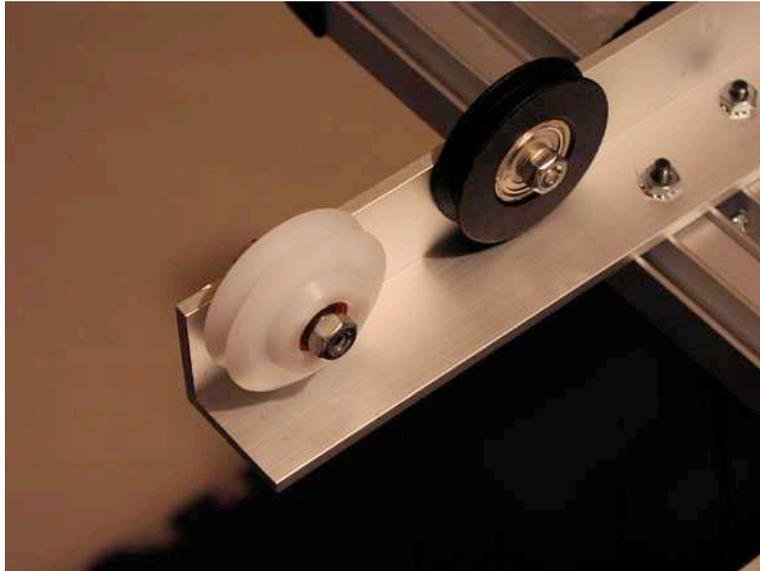
(5) I removed the nut and bolt holding the outer wheel. I used an 11mm socket, but these are not metric nuts. 11mm is the same as 7/16".



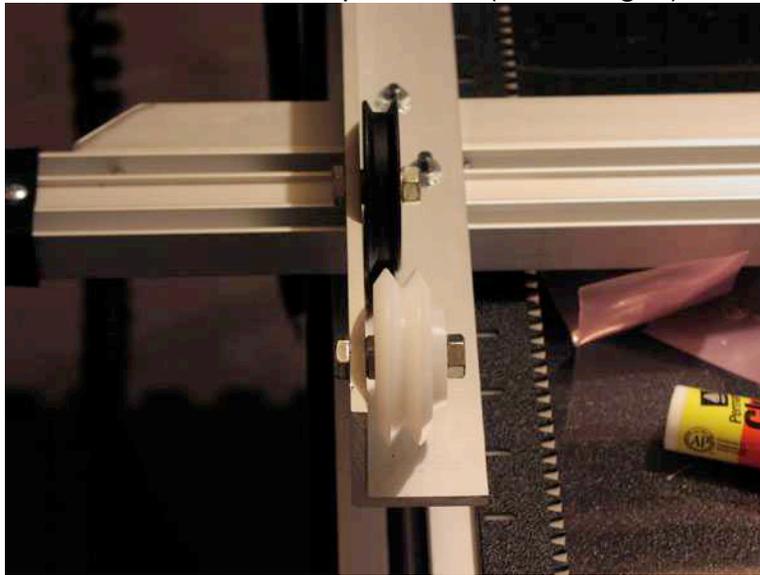
(6) I installed the new, longer bolt provided with the wheels, securing it with the thinner of the nuts provided.



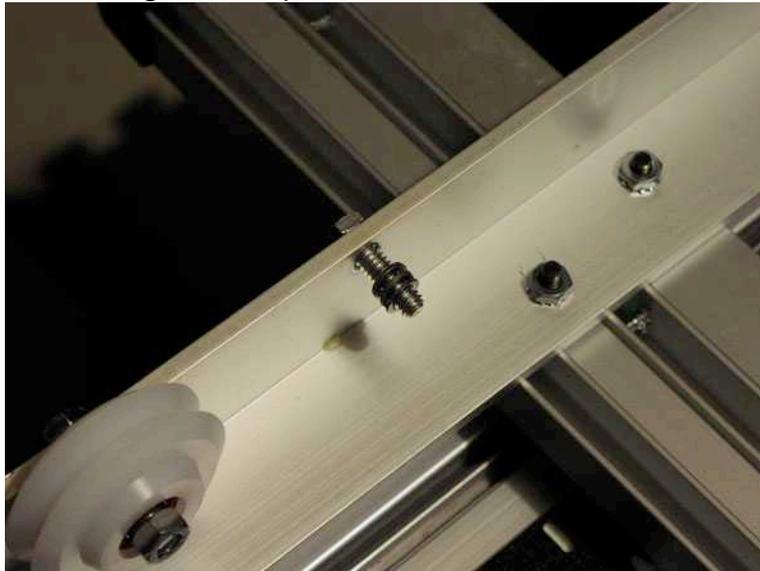
(7) I slid the new wheel onto the bolt.



(8) I secured the wheel with the wider of the nuts provided. (Not too tight.)



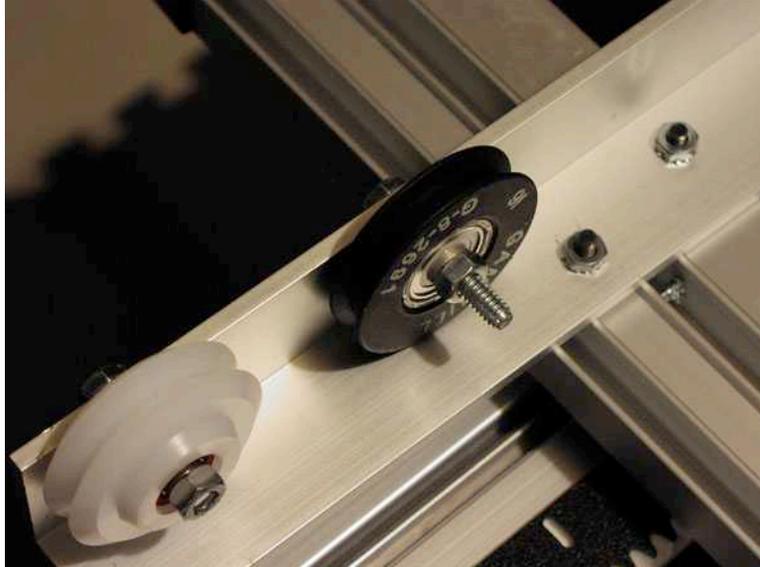
(9) Notice the parking wheel no longer lines up with the center of the new wheels.



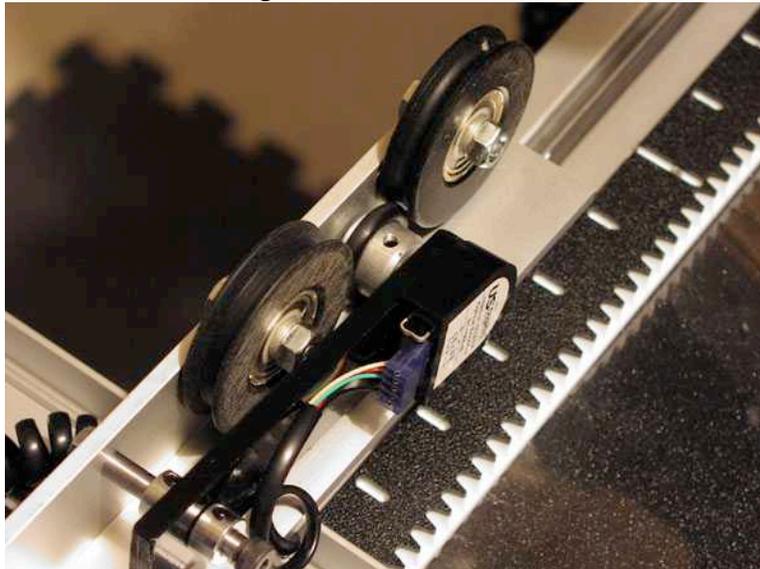
(10) Per the original instructions, I used two thick and one thin of the provided washers to add enough space to line the wheels up again.



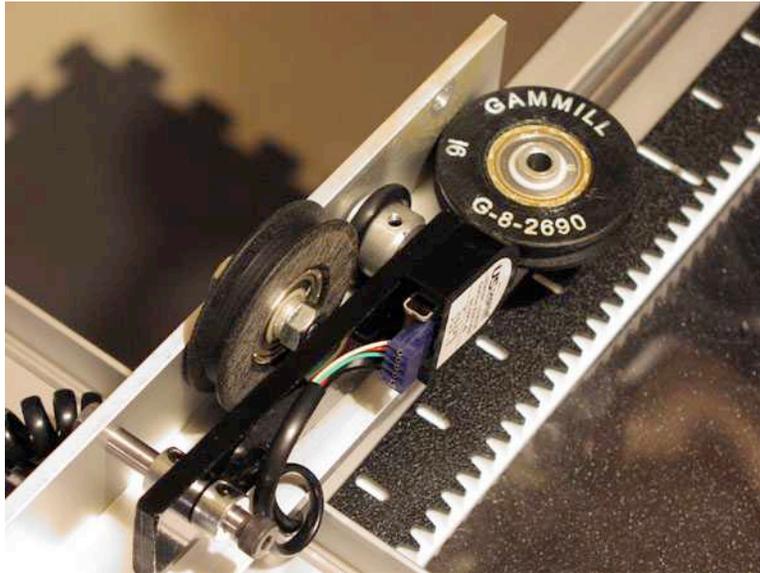
(11) However, with the added thickness, I could no longer reattach the nut that held the wheel on.



(12) I found a longer 1/4" bolt (from the hardware store) and used that to reattach the parking wheel with the spacers. The one I used is a bit too long, but is suitable.



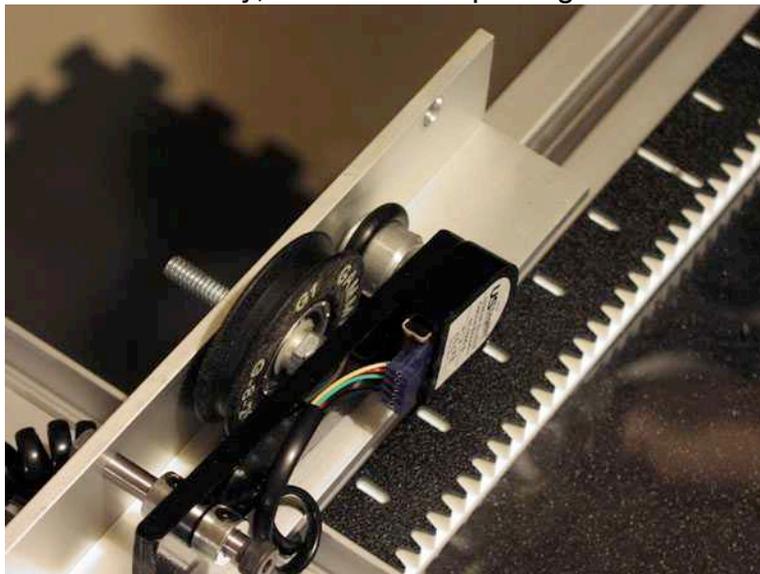
(13) These are the original rear wheels on the other side, with the stitch regulator sensor.



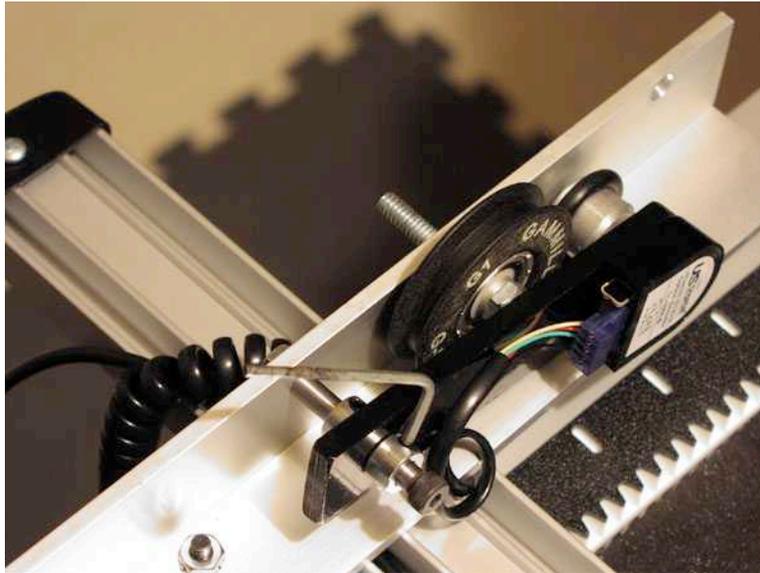
(14) I removed the original wheel.



(15) Holding the S/R sensor out of the way, I removed the parking wheel.



(16) Using another "larger" 1/4" bolt, I reinstalled the parking wheel, including two "thick" and one "thin" spacing washers between the bracket and the wheel. Note, however, that to prevent interference with the S/R sensor, I had to install the bolt the other way around.



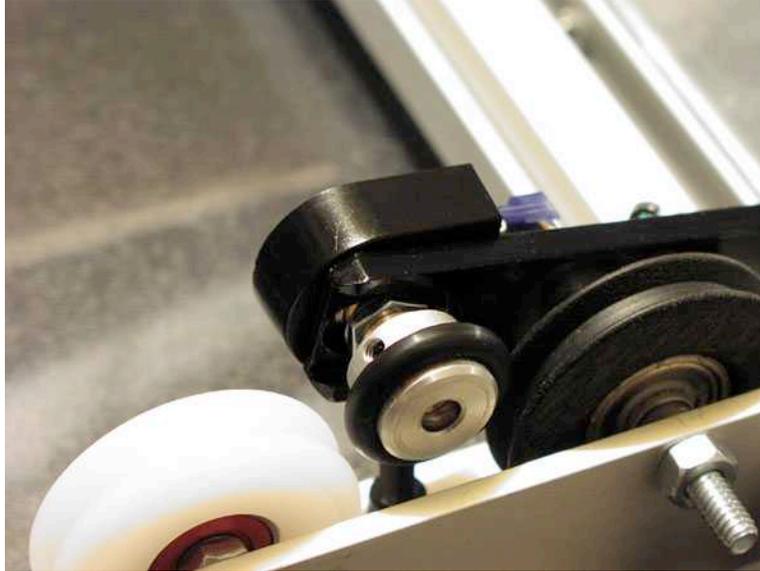
(17) Using an English allen wrench of the right size, I loosened the set screws that secured the collars that position the sensor, so I could swing the sensor arm out of the way. (I later repositioned these collars to adjust the sensor position in step 26.)



(18) I installed an Edgerider wheel as before, using the provided longer bolt, the thin nut to secure the bolt, and the wider nut to secure the wheel.



(19) Note that the sensor didn't quite reach the wheel any more, it falls right through. The sensor needs to rest on the wheel to work properly. To fix this, I needed to adjust the length of the bar holding the sensor.



(20) Notice the sensor is not mounted in just a simple hole, but is mounted in a slot that allows for adjusting the length.



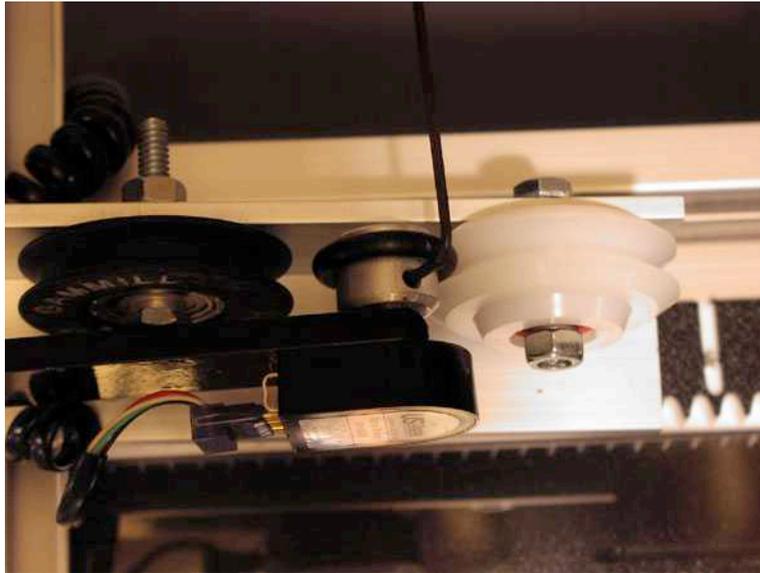
(21) I removed the sensor wheel by loosening the set screw and carefully prying it off the sensor axle.



(22) I loosened this sensor mounting nut, and slid the sensor outward far enough so that the sensor wheel would rest on the Edgerider wheel, but not too far, because then it would not fit between the bracket and the wheel. I used slip-joint pliers, but could have done this with a socket wrench if I had a deep enough socket.



(23) This photo shows what was far enough but not too far. Looking level with the frame, the frame would obscure a sliver of the metal part of the sensor wheel. If I let any more of the sensor wheel show, it wouldn't fit when I got to step 26.



(24) When the spacing was right, I tightened the sensor mounting nut, and tightened the set screw that holds the sensor wheel. It took a couple of iterations before I got the spacing just right.



(25) Now I needed to get the sensor wheel on the correct side of the Edgerider wheel. I couldn't do this by removing the Edgerider wheel, because there wasn't enough clearance to get the wheel back on the bolt. So I removed the mounting bolt for the sensor arm, repositioned the sensor on the correct side of the wheels, and put it back. If the sensor wheel didn't quite fit between the wheel and the frame, it would mean I made the sensor arm too long, and I would have had to go back to step 21 and make it a bit shorter.



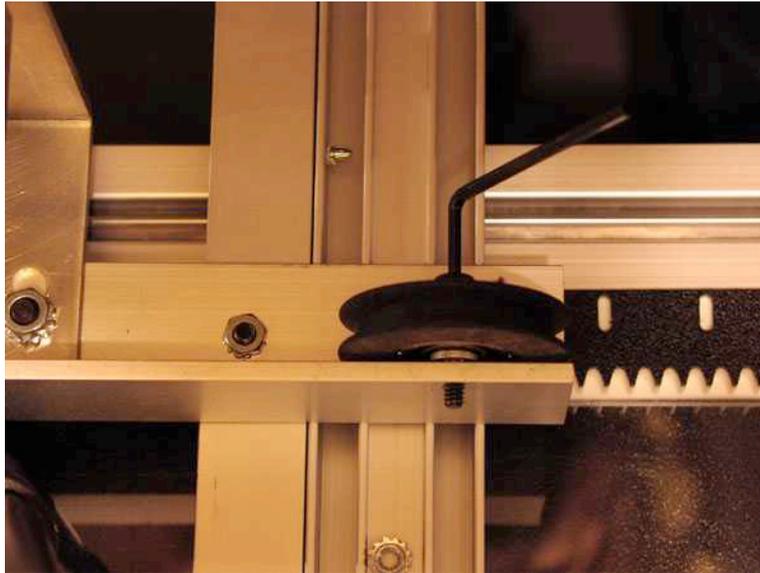
(26) I repositioned the collars that I loosened in step 17 to properly align the sensor wheel with the middle of the Edgerider wheel, and resecured the set screws. The photo shows the completed assembly.



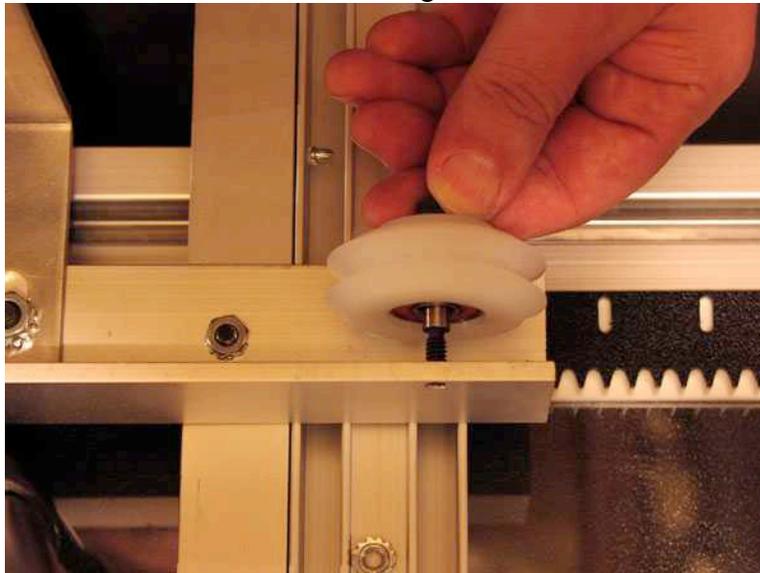
(27) This is the original front carriage wheel. There are two of these, and they were done the same way.



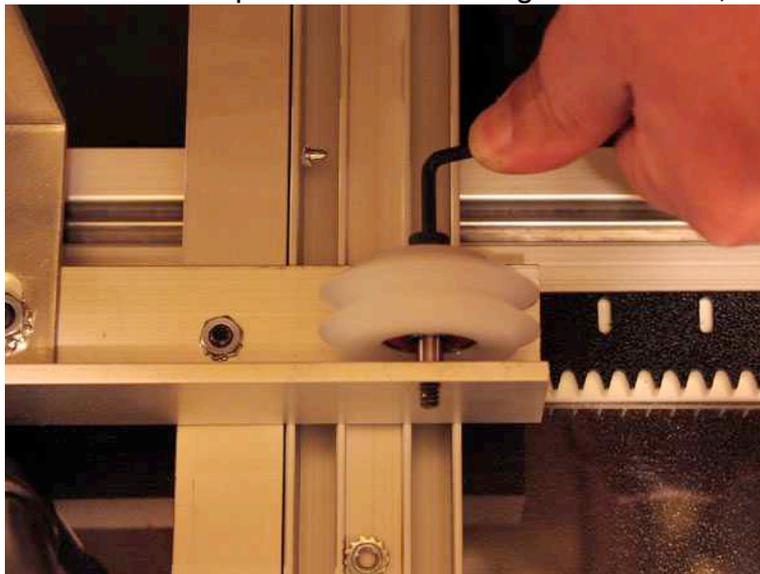
(28) I removed the securing nut using a socket wrench.



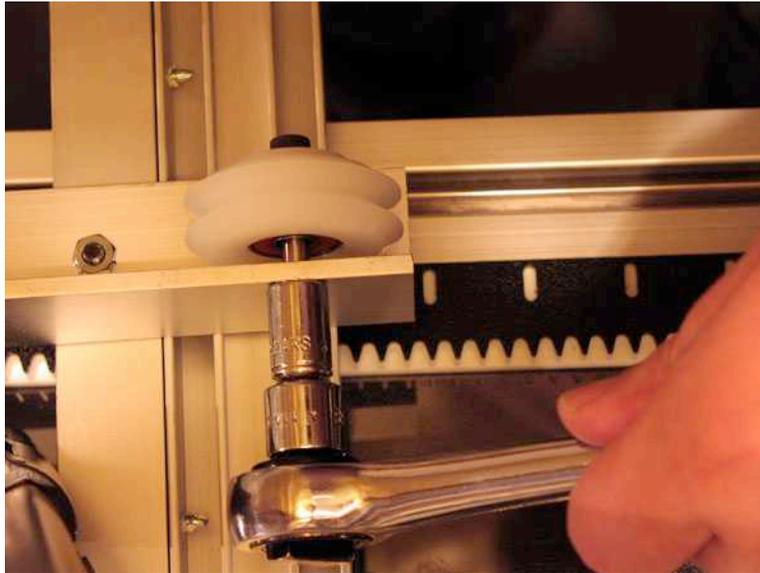
(29) I removed the shoulder bolt with the old wheel using an allen wrench.



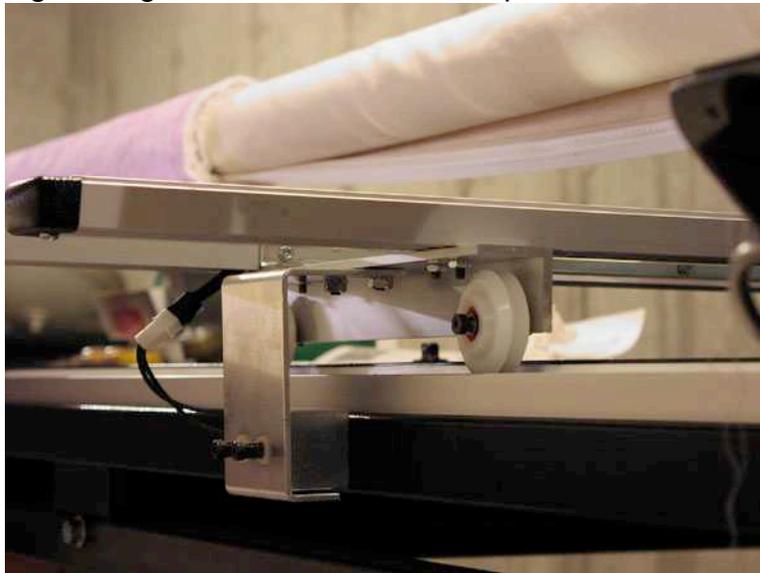
(30) Using one of the new shoulder bolts provided with the Edgerider wheels, I attached the new wheel.



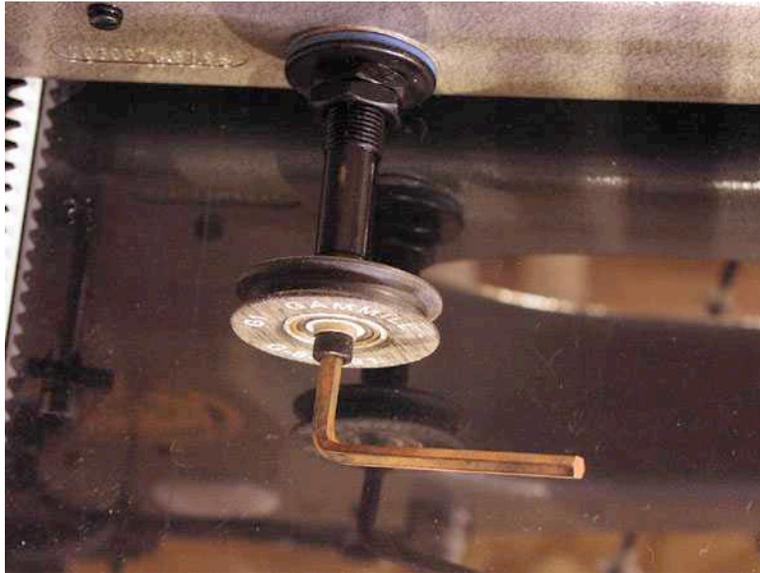
(31) I attached the bolt using an allen wrench.



(32) I secured the bolt using the original nut. I used the same procedure on the other front wheel.



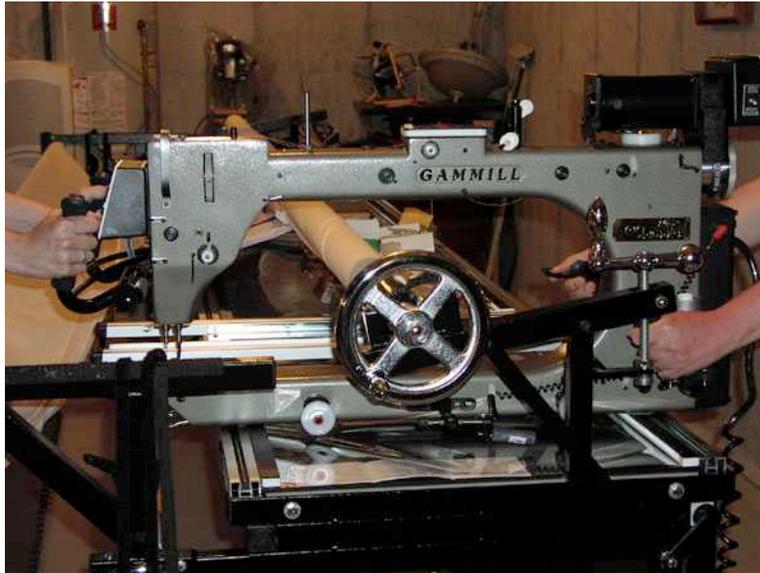
(33) Before I flipped over the carriage and put it back on the tracks, I loosened the bolts that hold the vertical channel lock, otherwise I couldn't get all four carriage wheels into the tracks. I readjusted the channel lock spacing in steps 39 and 40. See the photo in step 39 for which bolts I loosen - I do not loosen the ones with the springs in them! The channel lock is adjusted using the other two, the ones that attach the L-bracket to the frame.



(34) The four wheels on the machine are very easy, I just removed the bolt, keeping track of any washers that might have been included. Again, this required an English allen wrench, and...



(35) reattached using one of the supplied longer bolts, selecting one whose threads match the old one, and replacing all of the washers that I found on the original bolt. All four wheels were done the same way, but note that the number and size of washers that were found on each wheel was not the same. I had two wheels with no washers, one with two washers, and one with one.



(36) With help from a friend, I lifted the machine back onto the carriage.



(37) Using an allen wrench, I loosened the mounting screws for the horizontal channel lock. I did not loosen the screws with the springs on them, but rather, the screws that mount the bracket to the body of the machine.



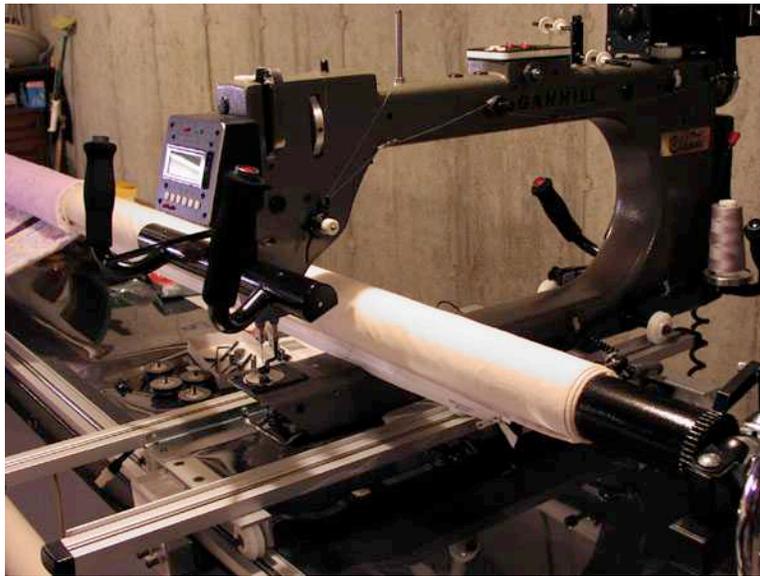
(38) With three business cards under the lock, I tightened the mounting screws. This set the proper spacing for the lock with the new wheels.



(39) I previously loosened the nuts for the vertical channel lock in step 33. Now I tightened them back down with the three business card spacing. This one was more difficult than the horizontal lock, because the business cards kept falling out and onto the floor.



(40) To secure the vertical channel lock, I needed to hold the bolt in place from the top with an allen wrench while tightening the nut from below. I had to find a low profile socket wrench to fit these close quarters.



I then verified the operation of the channel locks across the length and breadth that the machine can travel, making sure that the locks engaged when activated, and that they did not rub when released. If they had failed to engage, or if they rubbed, then I would make adjustments to the channel lock alignment accordingly.