

# RUNGU DUALIE® SINGLE GEAR INSTALLATION INSTRUCTIONS

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Rungu Dualie Single Gear eliminates chain and derailleur problems. With Single Gear, the Stainless-Steel driven sprocket aligns with the drive gear with minimal offset to ensure the chain pulls with minimum lateral force avoiding the main cause for a chain break. Rungu Dualie's custom-designed chain tensioner keeps the chain high off the ground and includes an integrated gear shield design that prevents ingress of grasses and sticks.

**NOTE: These instructions are for conversion from Microshift, Shimano or Box derailleur/shifter system. These instructions DO NOT apply to Rohloff builds.**

Kit Includes

- Single Speed Chain Tensioner



- Single Speed Sprocket



- Single Speed Spacers and Lockring



- e9 Chain



- Single Speed Gear Shield



- Zip ties

Tools required

- 2mm hex wrench
- 2.5mm hex wrench
- 3mm hex wrench
- 4mm hex wrench
- 5mm hex wrench
- GUB multi-function tire levers (included)



• Chain whip



• Dyke cutters



- Cassette locking remover (Shimano compatible)



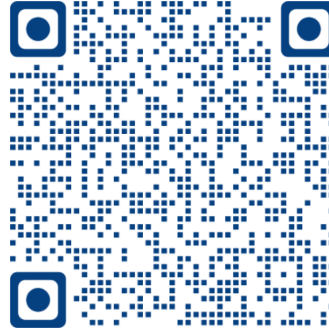
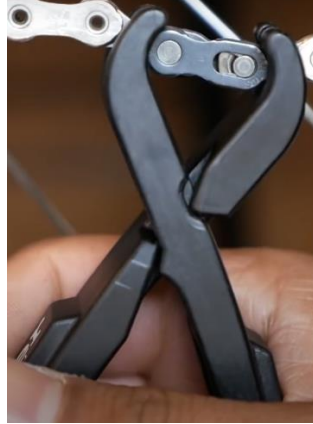
• 6-9 in. adjustable wrench



## Preparing Rungu Dualie for conversion from multi-speed to single gear

### Removing Multi-speed Drivetrain Components

- Link the GUB multi-function tire levers together and insert the master links in between the teeth of the tool. Squeeze the levers together to separate the links and remove the chain. Scan the QR code or click the link and refer to 2:06 in the video for a visual of how to use the GUB multi-function tire levers: <https://youtu.be/aPXv4onlUNs?si=eC6UUg7rCLM8DHIX&t=126>



- If you have a gear shield, use a 2mm hex wrench to loosen the screws of the derailleur portion. After all screws have been loosened and removed, remove the derailleur portion of the gear shield.

**Microshift**



**Box**





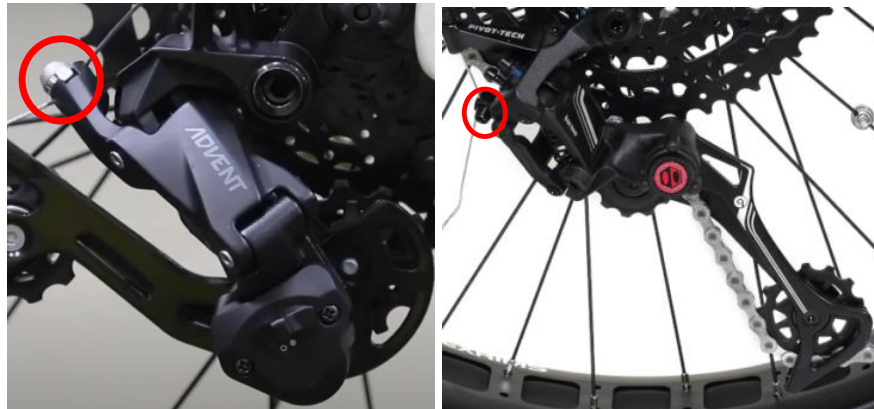
- If you have a gear shield, use the red knob to loosen the screw and remove the cassette portion of the gear shield.



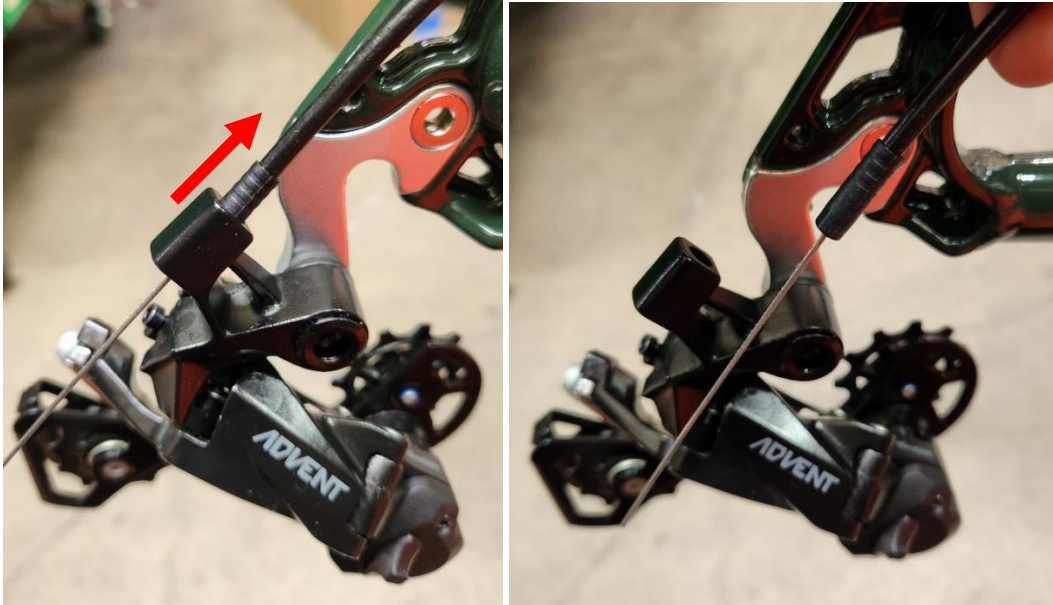
- Use a pair of dyke cutters to cut the end of the shifter cable in order to remove the cable tip.



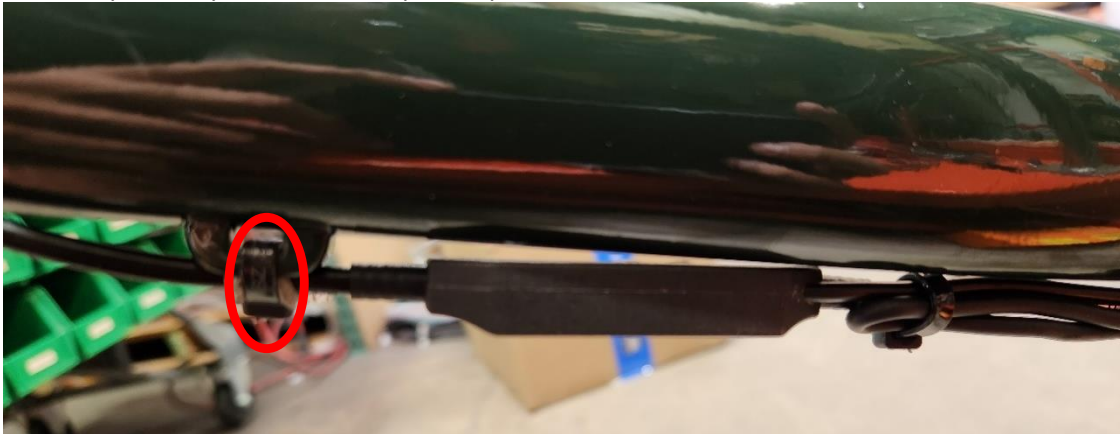
- Loosen the respective cable fixing bolt circled below using a 4mm hex wrench and remove the shifter cable from the derailleur.



- Remove the end of the shifter cable housing from the derailleur. (Note: This step is the same for Box derailleurs)



- Use a pair of dyke cutters to clip the zip tie circled in red.



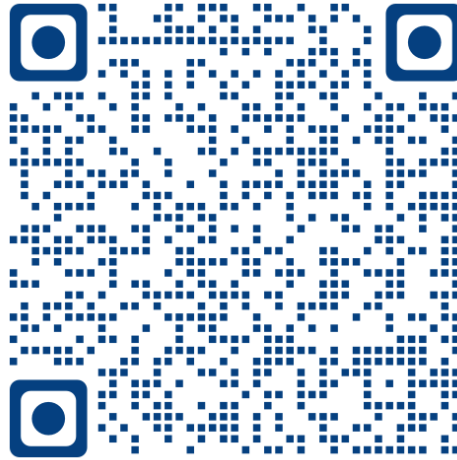
- Pull the shifter cable housing out of the gear sensor and remove that portion of the shifter cable housing.



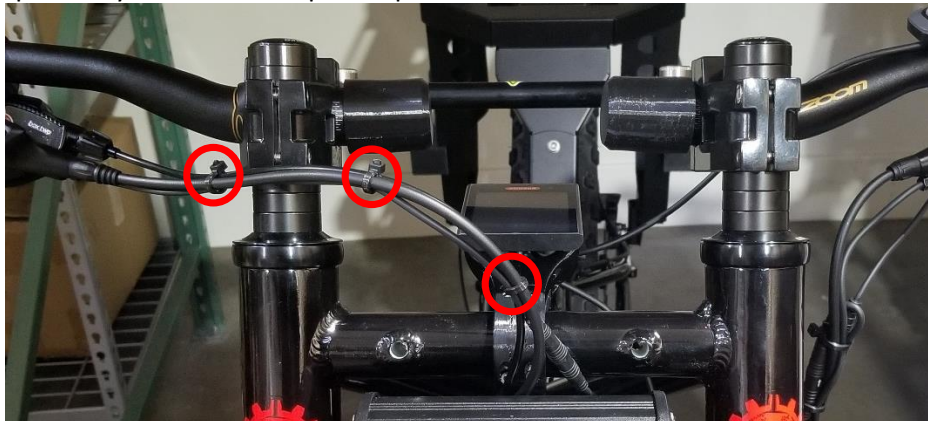
- Use a 5mm hex wrench to remove the derailleur.



- Remove the rear wheel. Refer to the section titled “How to remove the rear wheel” found on page 86 of the manual linked below for instructions:
  - <https://riderungu.com/wp-content/uploads/2024/01/Rungu-Dualie-XR-Series-User-Manual-v3.2.pdf>
- Use a cassette lockring remover, chain whip and large adjustable wrench to remove the cassette. Scan the QR code or click the link and refer to 3:15-4:15 in the video for a visual on how to remove the cassette: <https://youtu.be/9KAaP7pbFV0?si=Wei33omxOp2g0TjU&t=195>



- Use a pair of dyke cutters to clip the zip ties circled below.





- Pull the shifter cable housing out of the shifter as shown.



- Pull the shifter cable out from the shifter cable housing to completely remove the cable from the shifter cable housing.





- Use a 3mm hex wrench to loosen the retention screws on the right-side grip. Remove the grip from the handlebar.



- Use a 4mm or 5mm hex wrench to loosen the brake lever retention screws. Remove the brake from the handlebar.



- Use a 4mm or 5mm hex wrench to loosen the shifter retention screw(s). Remove the shifter from the handlebar.



- Re-install the brake lever onto the handlebar.

- Re-install the grip such that the end of the grip is flush with the end of the handlebar. Orient the grip such that the retention screws are underneath the handlebar. Use a 3mm hex wrench to tighten the retention screws.



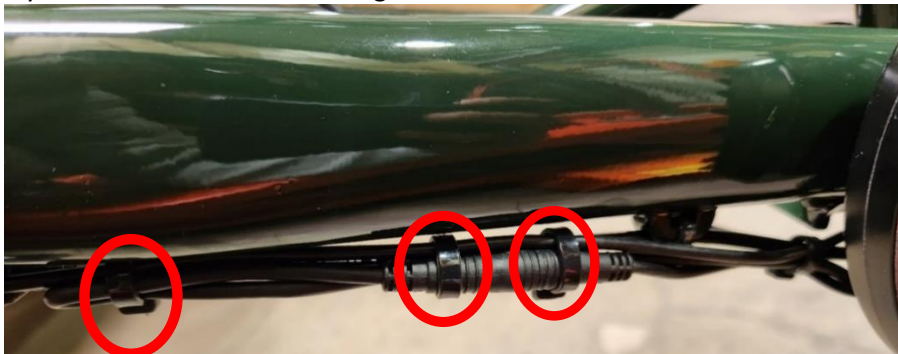
- Slide the brake lever such that there is a  $\frac{1}{4}$ " gap between the brake lever clamp and the edge of the grip.



- Orient the brake lever such that it faces 5 o'clock looking from the end of the handlebar. Use a 4mm or 5mm hex wrench to tighten the brake lever retention screws.



- Use a pair of dyke cutters to clip the zip ties circled in red. The zip ties are under the right chainstay as shown in the second image.





- Disconnect the gear sensor connector by pulling both ends apart. (Note: DO NOT twist when disconnecting.)



- Pull the shifter cable housing out of the gear sensor and remove the gear sensor.





### Removing the shifter cable housing

Depending on the Rungu Dualie frame design you have, the procedure for removing the shifter cable housing differs.

**Note: If you plan to replace the multi-speed transmission in the future, follow the steps in the subsection “Retaining the shifter cable housing.”**

### First Step – Identify which variation you have.

- Identify whether the unit is variation A or B. As of 2024, there are two variations of Rungu Dualie constructions in the market that have distinct differences in electronic/electrical layout.
  - Rungu Dualie/MDV variation
  - Rungu Dualie variation with an integrated battery

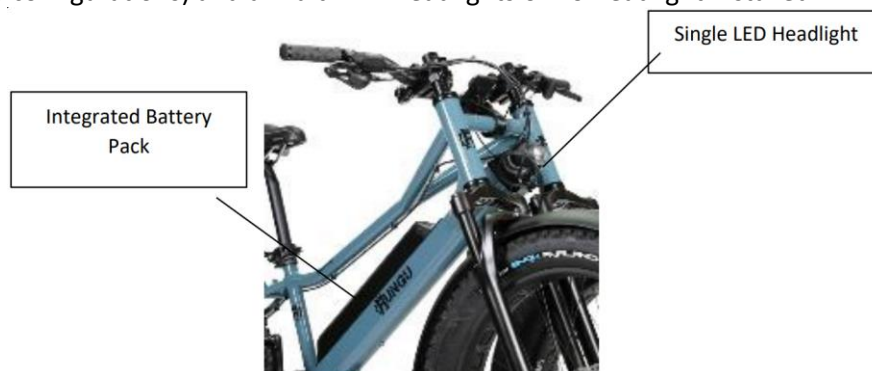


Variation A: This unit may have one or battery packs



Variation B: Rungu Dualie model with an integrated battery

- You can distinguish variation B from variation A by the headlight and integrated battery. Variation B uses an integrated battery pack and a single LED headlight. Model A has battery pack cases (under the frame for single battery versions; with a second battery case in the cargo rack for dual battery configurations) and a Multi-LED headlights or no headlight installed.



Variation B: Rungu Dualie model with an integrated battery

## Removing the Shifter Cable Housing – Variation A

**Note:** If you plan to replace the multi-speed transmission in the future, follow the steps in the subsection “Retaining the shifter cable housing.”

- Remove the sealed end cap from the end of the shifter cable housing.



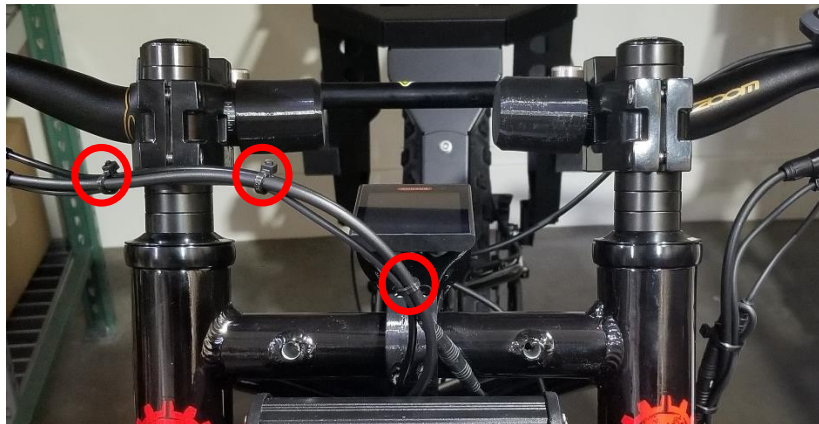
- Use a pair of dyke cutters to clip the zip ties circled in red.



- Pull the shifter cable housing towards the front of the frame to remove it.



- Zip tie the cables leading to the right handlebar as shown. Use a pair of dyke cutters to trim the zip tie leads. Remove and discard the shifter cable.



## Removing the Shifter Cable Housing – Variation B

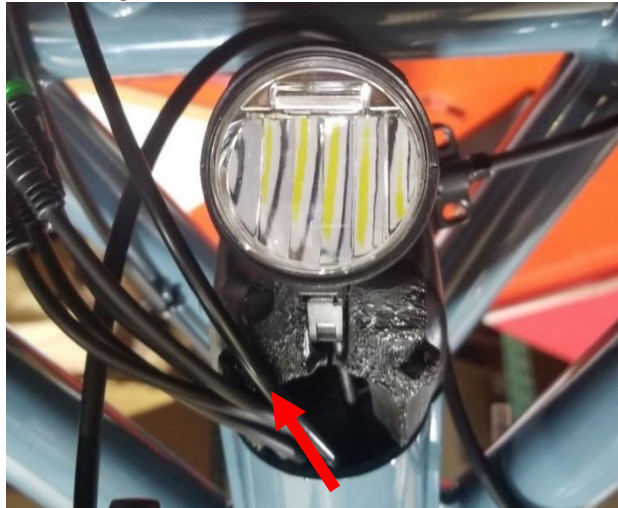
**Note:** If you plan to replace the multi-speed transmission in the future, follow the steps in the subsection “Retaining the shifter cable housing.”

**WARNING: DO NOT REMOVE THE SHIFTER CABLE HOUSING IF YOU PLAN TO RETURN TO MULTI-SPEED TRANSMISSION IN THE FUTURE. THE FOLLOWING REMOVAL STEPS ARE NOT REVERSIBLE.**

- Remove the sealed end cap from the end of the shifter cable housing.

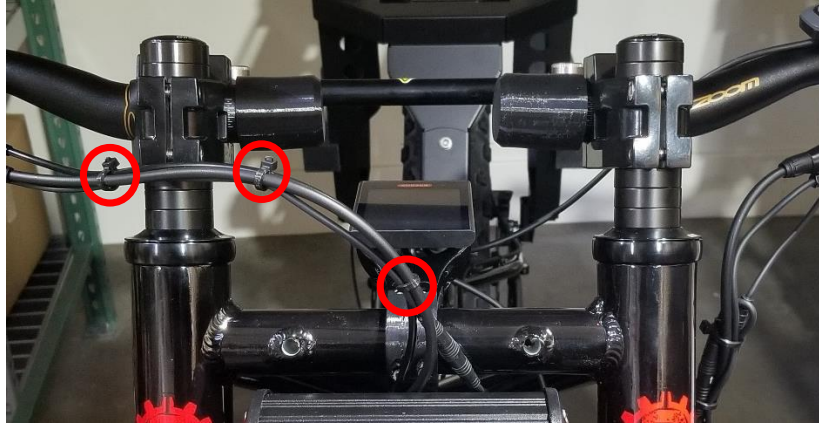


- Pull the shifter cable housing towards the front of the frame to remove it.





- Zip tie the cables leading to the right handlebar as shown. Use a pair of dyke cutters to trim the zip tie leads. Remove and discard the shifter cable.



## Retaining the shifter cable housing – Variation A

- Route the shifter cable housing as shown. This cable is found under the right chainstay as shown in the second image.

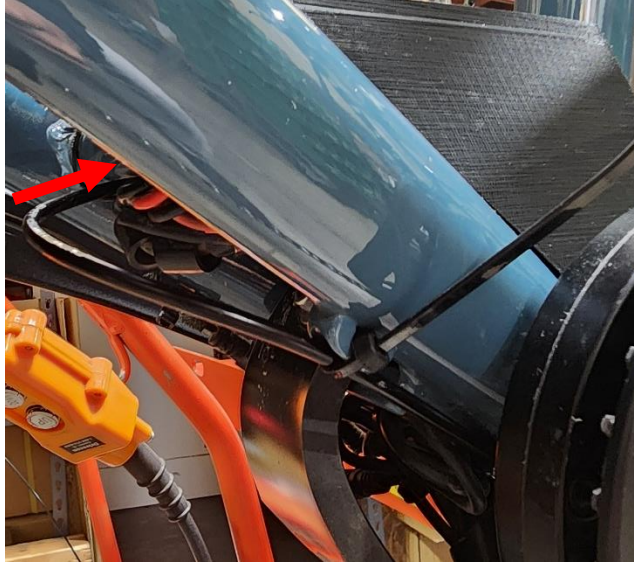


- Zip tie the shifter cable housing as shown. Use a pair of dyke cutters to trim the zip tie leads.



### Retaining the shifter cable housing – Variation B

- Route the shifter cable housing as shown. This cable is found under the right chainstay as shown in the second image.

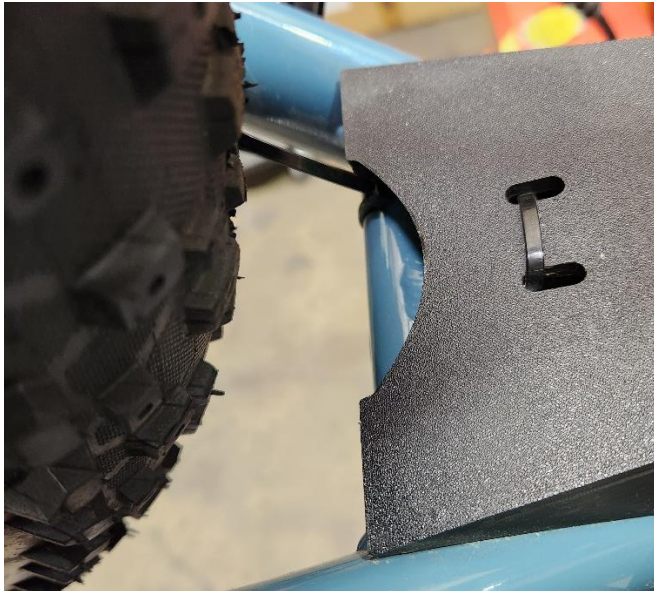




- Zip tie the shifter cable housing as shown.



- Push the shifter cable housing until it is hidden as shown. Use a pair of dyke cutters to trim the zip tie leads.





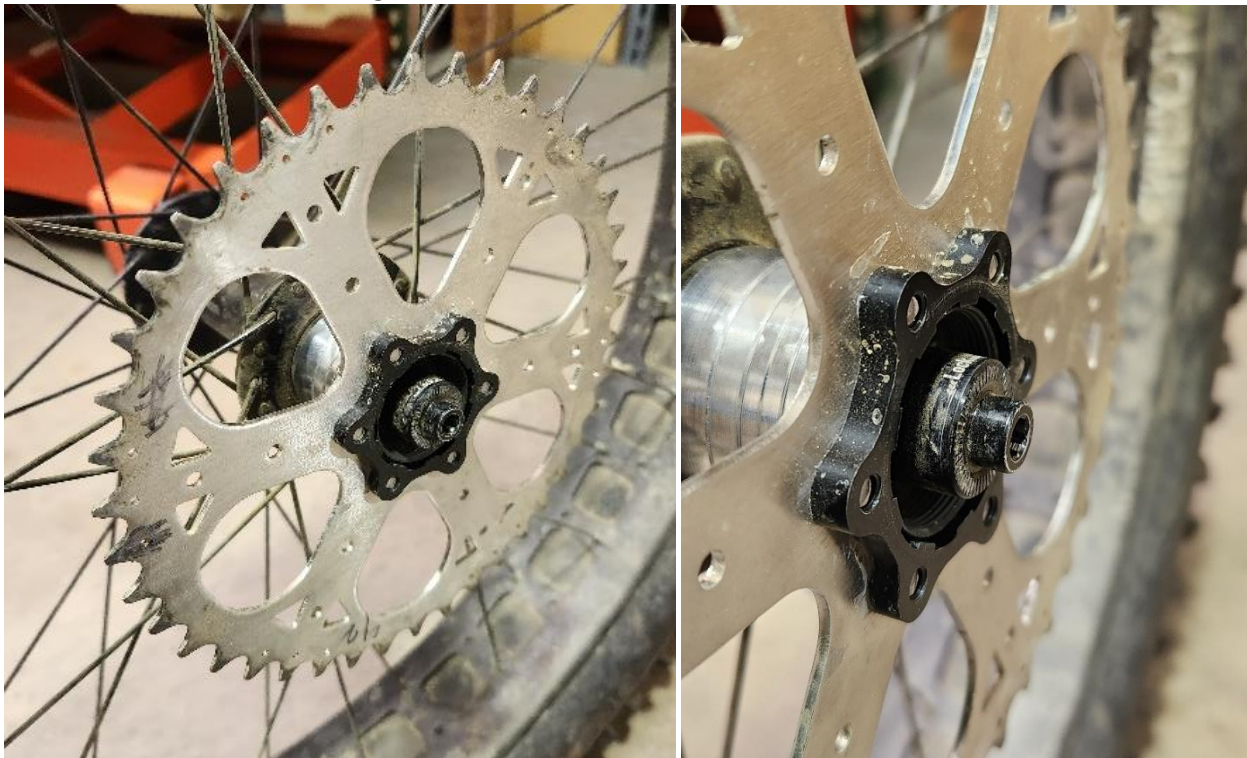
## Installing Single Gear Components

### Sprocket Installation

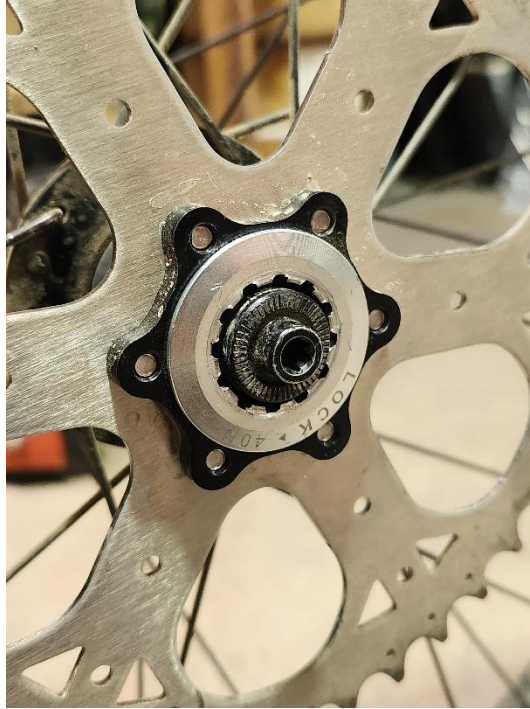
- Install the spacers onto the freehub body as shown (Note: Order does not matter):
  - 1 ea. 10mm
  - 1 ea. 5mm
  - 3ea. 3mm



- Install the sprocket onto the freehub body. Note that the end of the sprocket will not be flush with the end of the freehub body, rather it will sit slightly over the end of the freehub body as seen in the second image.



- Fasten the lockring by hand. NOTE: Make sure that the threads of lockring catch correctly onto the threads of the freehub body so that the threads of the freehub body are not cross threaded.



- Insert a cassette lockring remover.





- Use a large adjustable wrench to tighten the locking.



- Replace the rear wheel. Refer to the section titled “How to replace the rear wheel” found on page 89 of the manual linked below for instructions:
  - <https://riderungu.com/wp-content/uploads/2024/01/Rungu-Dualie-XR-Series-User-Manual-v3.2.pdf>

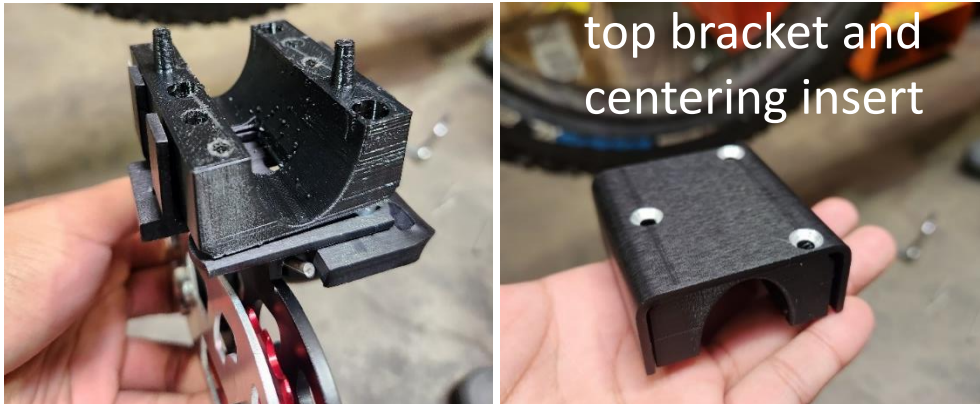


## Chain Tensioner Installation

- Use a 2.5mm hex wrench to remove the three M4x60 flat head screws.

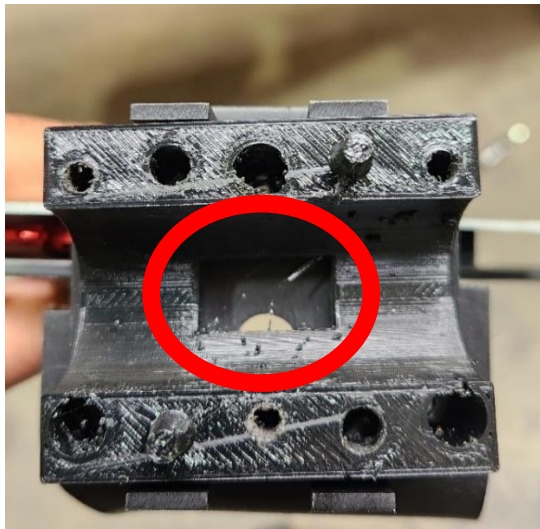


- After the three M4x60 flat head screws have been removed, separate the top bracket and centering insert as shown. Set the top bracket and centering insert aside for now, they will be used in a later step.





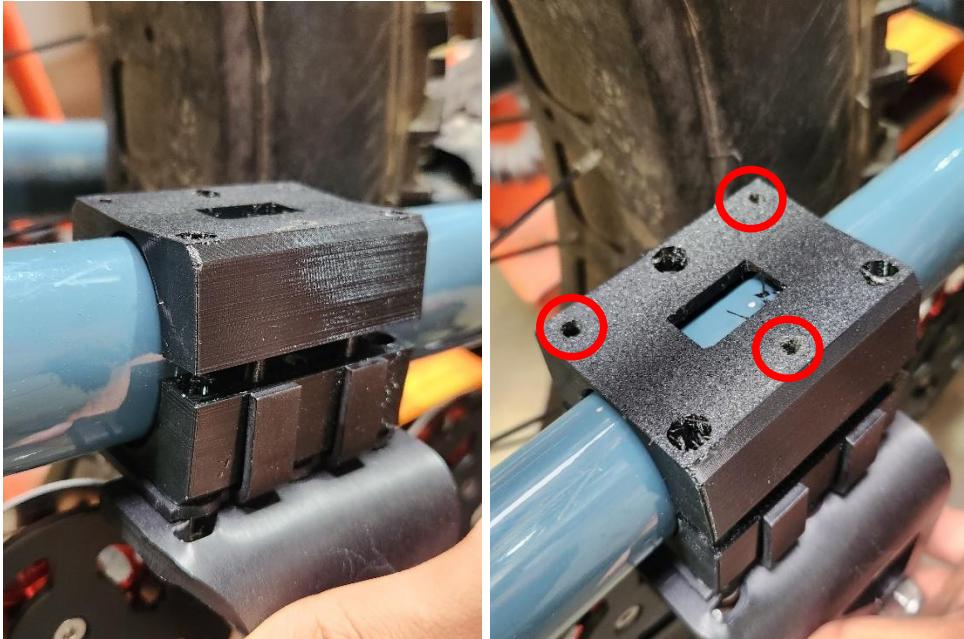
- The tie down circled below will be used as a guide when mounting the chain tensioner. Mount the chain tensioner onto the tie down as shown using the centering insert as a guide.



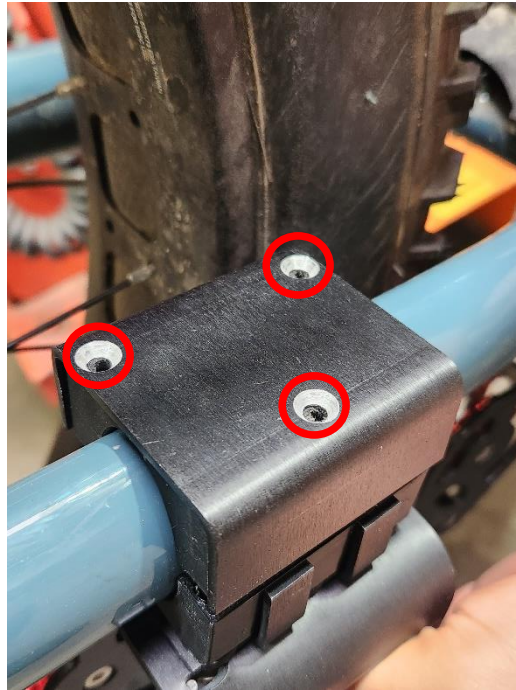
- Check that the chain tensioner is oriented as shown below.



- Mount the top centering insert as shown. The small holes at the top of the centering insert should be oriented as shown.



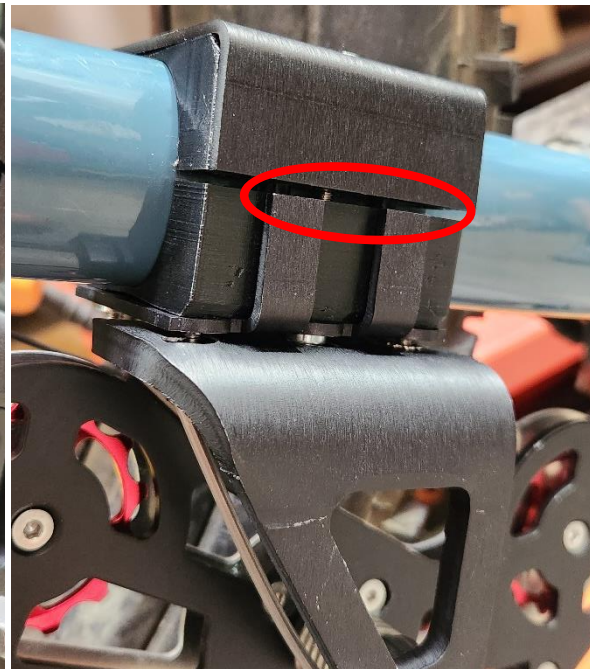
- Mount the top bracket as shown.





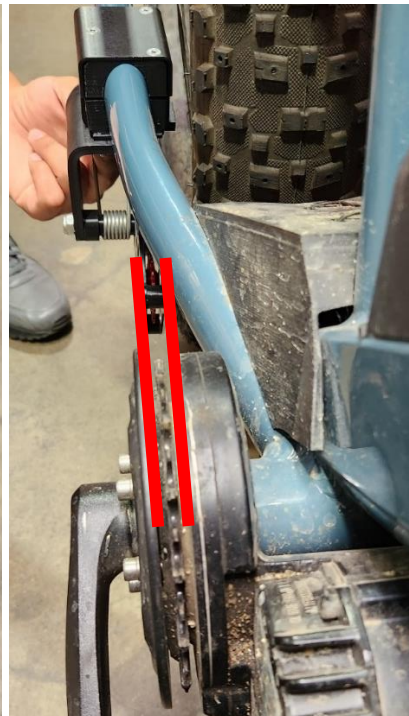
- Use a 2.5mm hex wrench to hand tighten the three M4x60 flat head screws.

**Note: DO NOT fully tighten the screws, this will be done at a later step. Ensure that each M4x60 flat head screw catches the nut on the bottom bracket and that there is a gap between the top and bottom brackets as shown.**

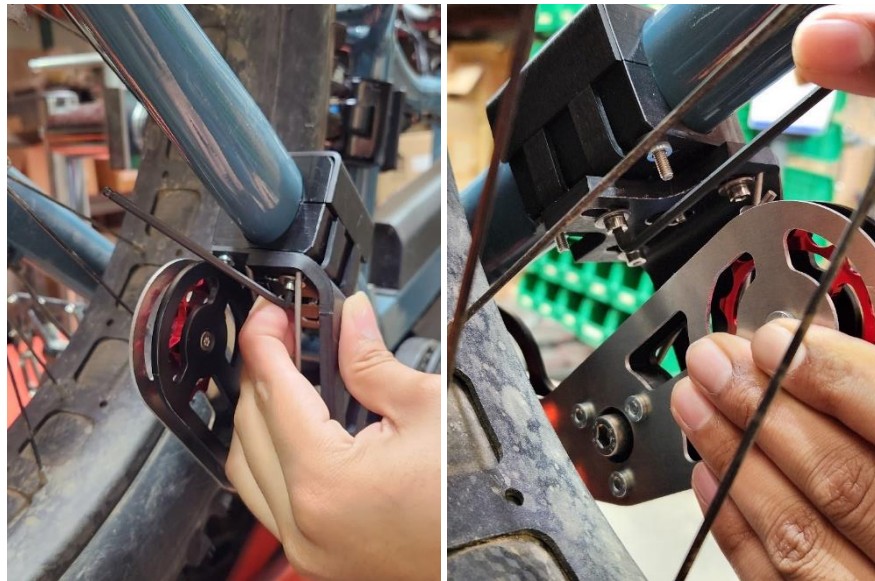
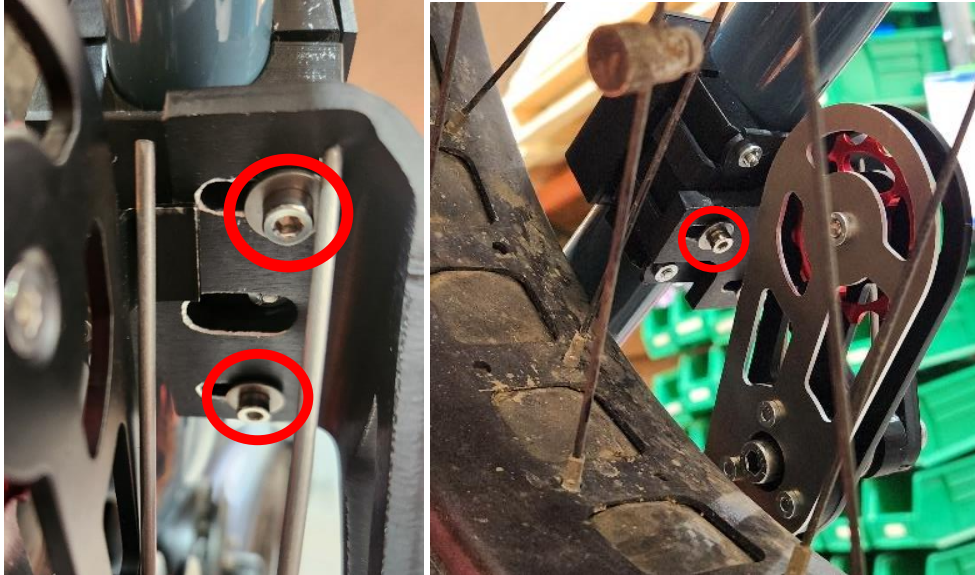




- Adjust the chain tensioner such that the rear pulley wheel of the chain tensioner is in line with the rear sprocket and the front pulley wheel is in line with the front chainring.



- Use a 3mm hex wrench to fully tighten all three M4x16 socket head cap screws to secure the position of the chain tensioner cage from underneath the chain tensioner mount.





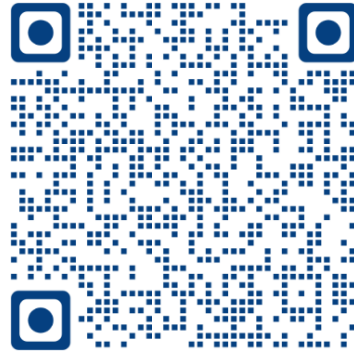
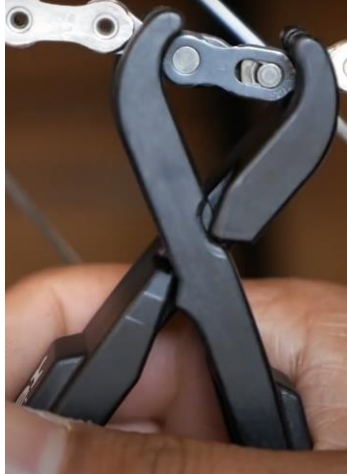
- Use a 2.5mm hex wrench to fully tighten the three M4x60 flat head screws.



- Route the chain through the chain tensioner as shown.

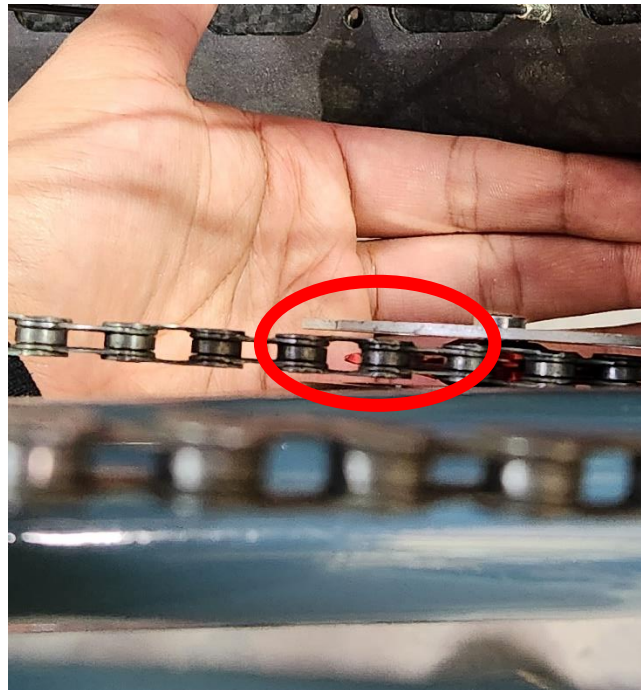
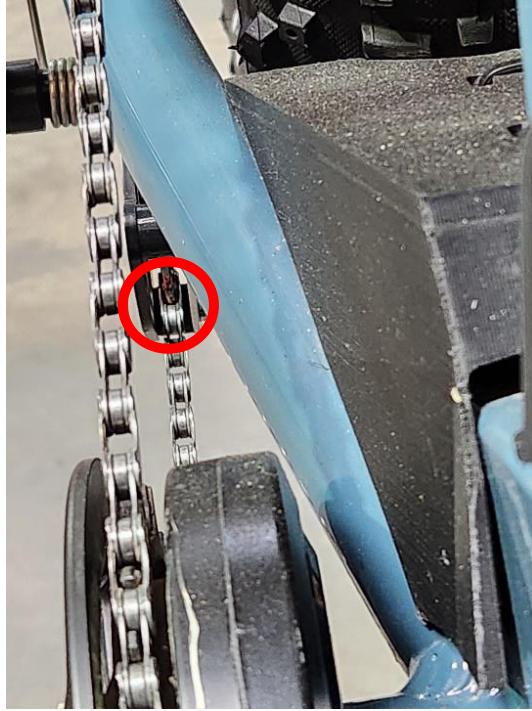


- Join the master links together using the GUB multi-function tire levers. Scan the QR code or click the link and refer to 2:43 in the video for a visual of how to use the GUB multi-function tire levers. After the master links have been joined together, pedal until the master links are above the chainstay. While holding the front brake, step on the pedal to lock the master links into place: <https://youtu.be/aPxv4onlUNs?si=ef42iljrCFEyl6mf&t=163>

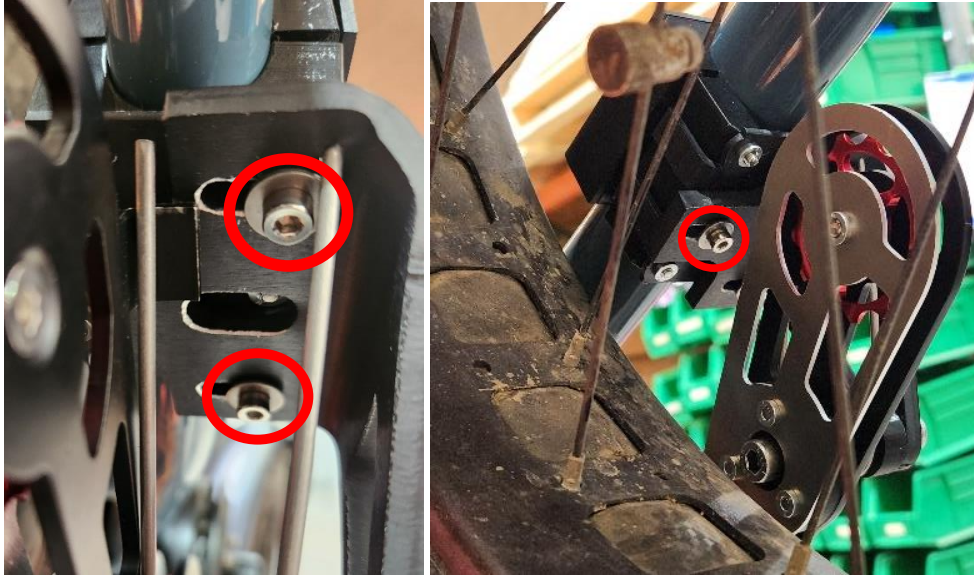




- Check that the chain does not interfere with the chain tensioner cage at the front and rear pulley wheels.



- If there is no interference between the chain and chain tensioner cage, continue to the next step. If the chain interferes with the chain tensioner cage, use a 3mm hex wrench to loosen all three M4x16 socket head cap screws and adjust the chain tensioner until the chain does not interfere with the chain tensioner cage at the front and rear pulley wheels. Fully tighten all three M4x16 socket head cap screws.



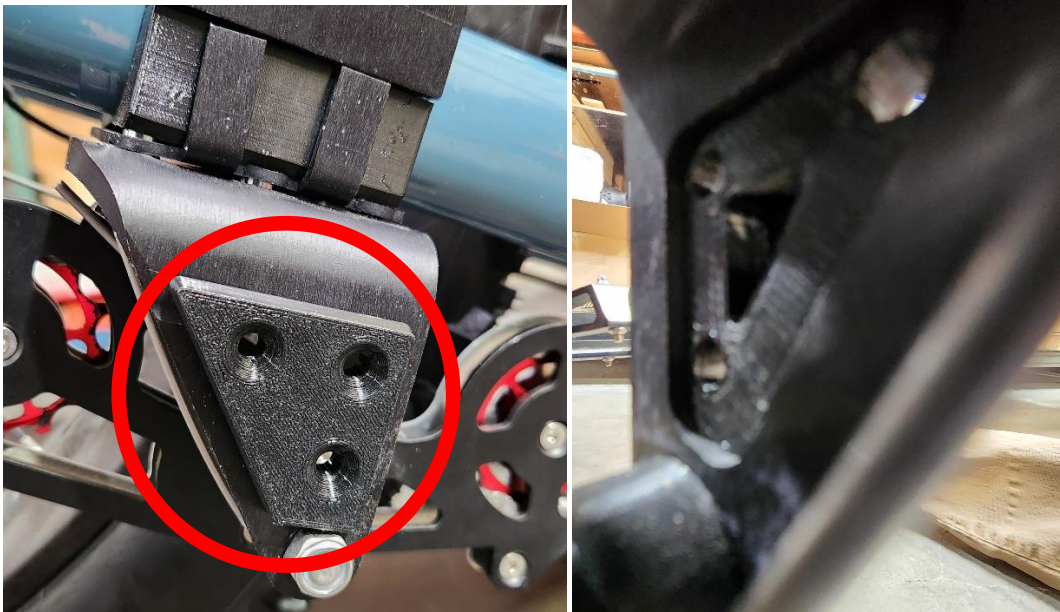
- Find an object (e.g. empty bucket, cardboard box) that you can use to support the bike in order to elevate the rear wheel.



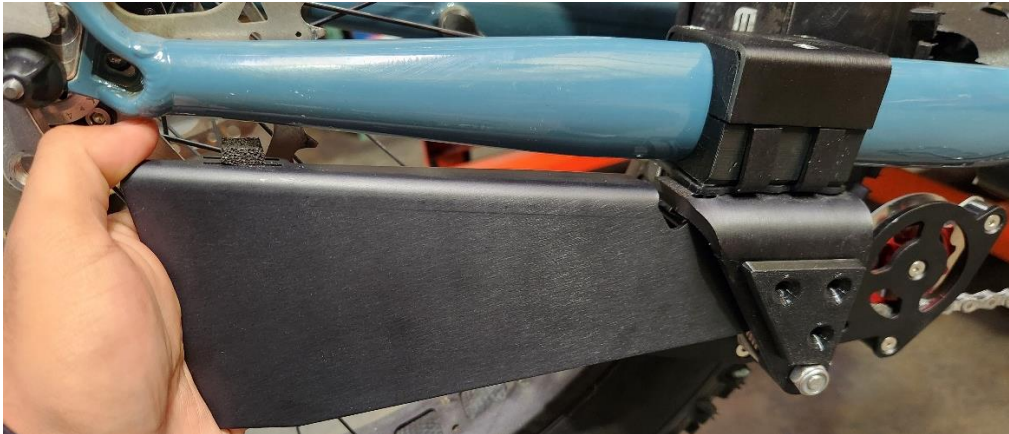
- Turn the pedals and listen for a clicking sound that would result from the chain rubbing against the chain tensioner cage. If there is a clicking sound, adjust the chain tensioner as mentioned in previous steps. If there is not a clicking sound continue to the next step.

### Gear Shield Installation

- Install the single speed gear shield mounting cover as shown.

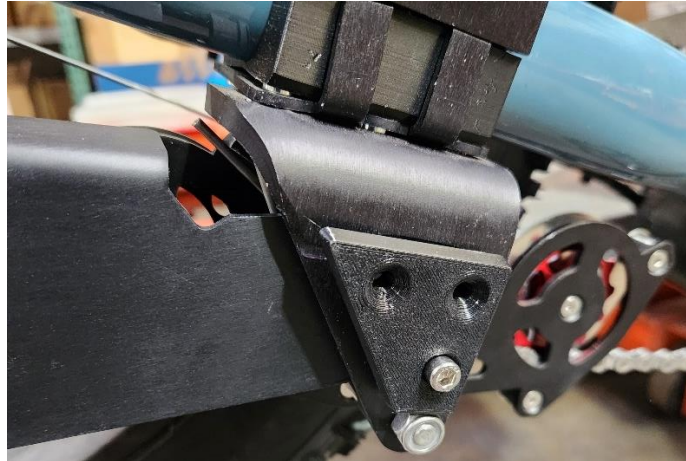


- Hold the single speed gear shield in place as shown.





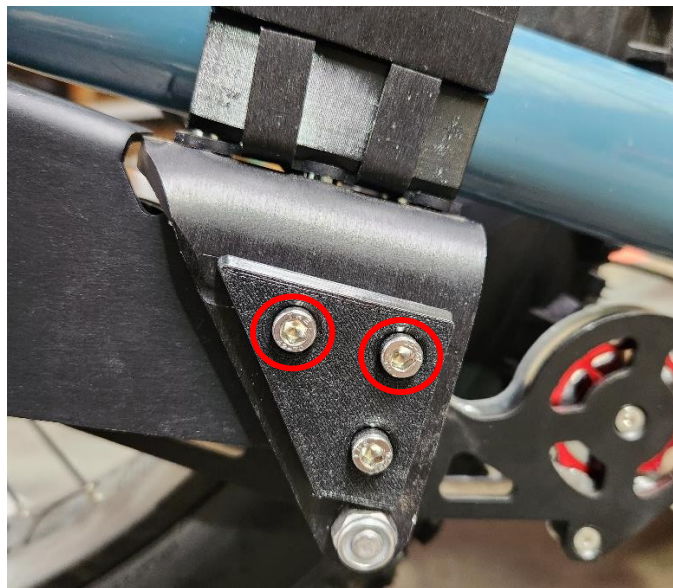
- Hand tighten the M5x18 SHCS as shown.



- Use a 4mm hex wrench to tighten the M5x18 SHCS. DO NOT fully tighten this screw, this will be done in a later step.



- Repeat this process for the other two M5x18 SHCS

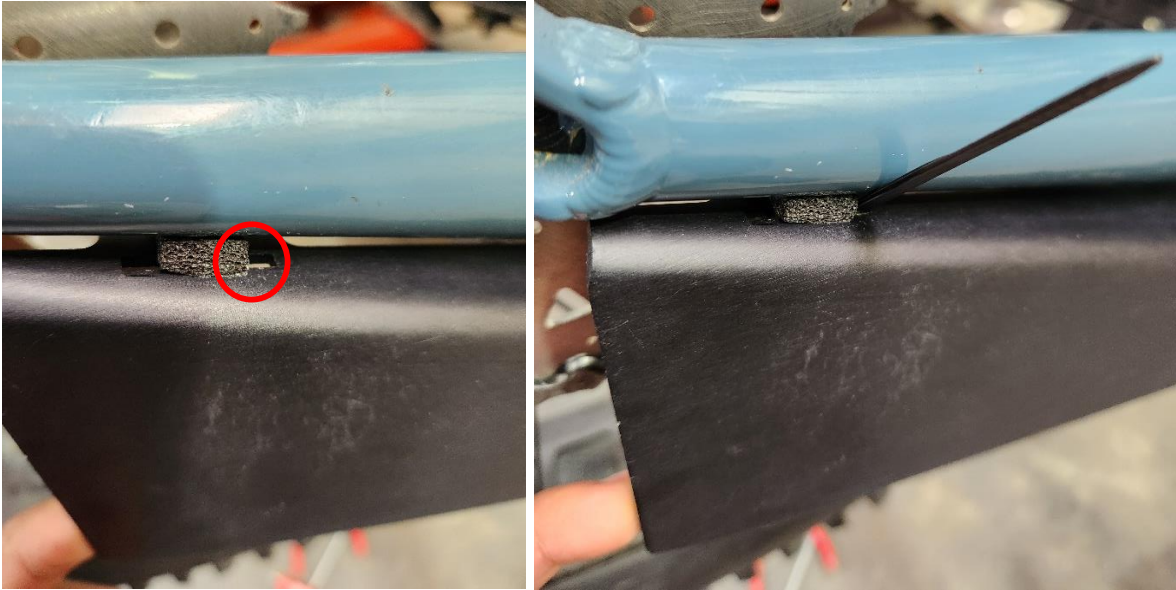


- Push the single speed gear shield up so that the foam rests on the bottom of the chainstay.





- Insert a zip tie through the hole circled in the first image.





- Wrap the zip tie around the chainstay and insert the zip tie through the hole circled below.



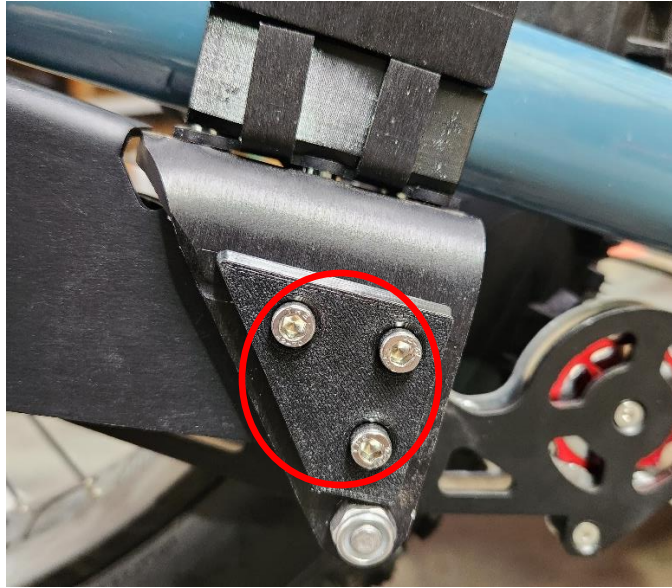
- Fasten and fully tighten the zip tie.



- Repeat this process for the second zip tie. Use a pair of dyke cutters to trim the zip tie leads.



- Use a 4mm hex wrench to fully tighten all three of the M5x18 SHCS.



- The final result is shown below.





Single Gear Performance Specifications – Stock Bafang BBSHD motor with 52V modification

<b>Gear size (T)</b>	<b>Max Rear Wheel Torque (Nm)</b>	<b>Max Rear Wheel Torque (ft-lb)</b>	<b>Max estimate d Ground Force (lb)</b>	<b>Top Speed (mph)</b>
<b>13</b>	93	69	55	29
<b>14</b>	100	74	59	27
<b>15</b>	108	79	64	25
<b>16</b>	115	85	68	24
<b>17</b>	122	90	72	22
<b>18</b>	129	95	76	21
<b>20</b>	140	103	83	19
<b>22</b>	161	119	95	17
<b>26</b>	187	138	110	14
<b>30</b>	222	164	131	12
<b>34</b>	244	180	144	11
<b>38</b>	273	201	161	10
<b>42</b>	301	222	178	9

#### Other Questions

For other questions, please email [support@riderungu.com](mailto:support@riderungu.com) or call +1 (949) 877-9755.