



# Free Wheelchair Mission GEN 1 Rear Wheel Axle Replacement

Replace/Install the rear wheel axle to the GEN 1.

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## INTRODUCTION

The rear wheel axle holds the rear wheels to the wheelchair and allows smooth operation of the wheelchair.

Before maintaining the Rear Wheel Axle, familiarize yourself with tools you will be using with the [Free Wheelchair Mission Tools Maintenance Guide](#).



### TOOLS:

- [10mm Wrench](#) (1)
- [19mm Crescent Wrench](#) (1)
- [Socket 19mm](#) (1)
- [Large Needle Nose Pliers](#) (1)



### PARTS:

- [Rear Mountain Bike Wheel](#) (2)
- [Socket 19mm](#) (2)
- [19mm Bolt](#) (2)
- [Axle Baseplate](#) (2)
- [Axle](#) (1)
- [Small Bolt](#) (4)
- [Small Nut](#) (4)

## Step 1 — Rear Wheel Axle



- Attach the 19mm socket wrench to the head of the bolt in the middle of the wheel
- With the other hand use the 19mm crescent wrench to hold the nut in place
- While holding the 19mm crescent wrench in place, use socket wrench to unscrew the bolt
  - ⓘ The Free Wheelchair Mission Multi-Purpose Tool can be used in place of the 19mm socket wrench
- Remove the wheel from the axle

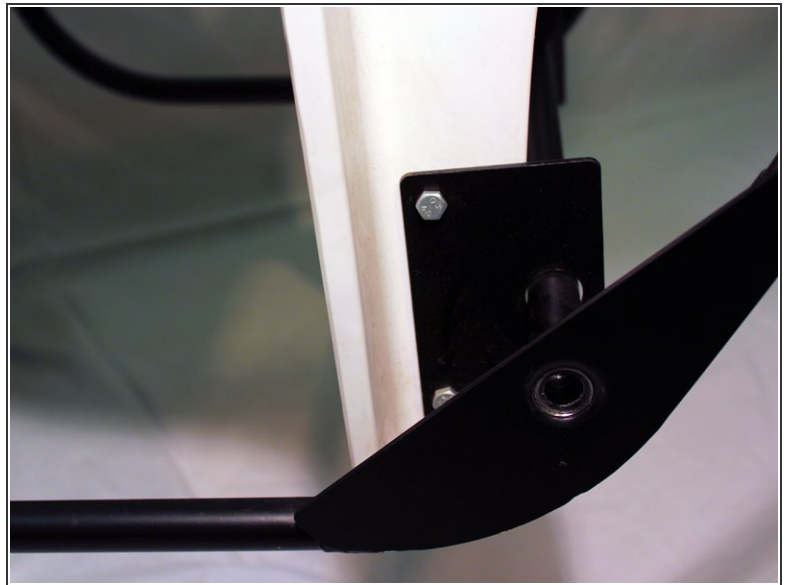
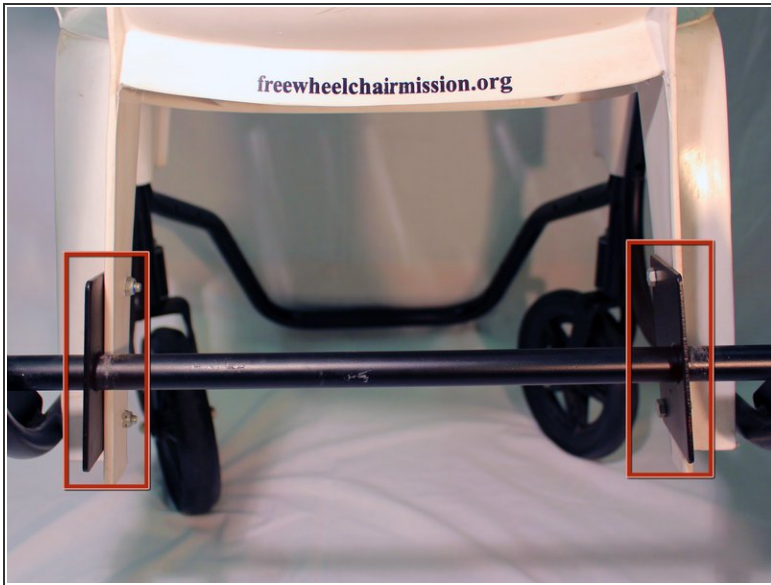


## Step 2



- Unscrew the nut holding the bolt and wheel together using your hands.
  - ⓘ It might be necessary to loosen the nut with a 19 mm crescent wrench and the multi purpose tool
- Repeat step on other wheel
- ⓘ Make sure to keep all corresponding nuts and bolts together to prevent mixup when reassembling the axle

### Step 3



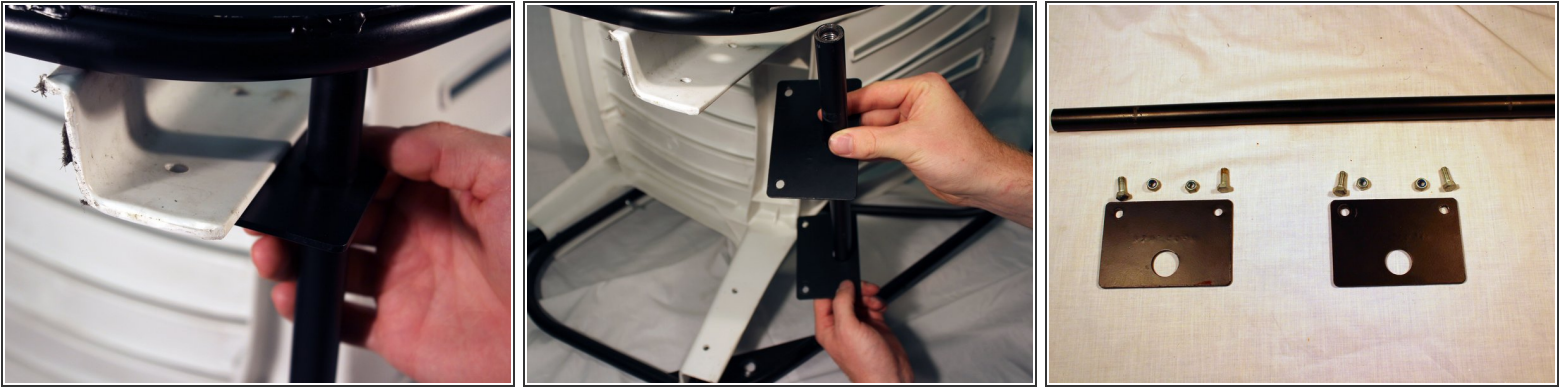
- Locate the two baseplates on the back of the wheelchair holding the axle in place

### Step 4



- Using the pliers to hold the bolt in place, use the 10mm wrench to remove one bolt from the baseplate.
- Repeat above step on second bolt
- Repeat the process on the other baseplate, once one baseplate is loose from the chair and frame,

## Step 5



- Once both baseplates are loosened from the chair, pull the axle off from the wheelchair
  - ⓘ The axle should come off easily
- Slide the baseplates off of the axle

To reassemble the axle to the wheelchair, follow these instructions in reverse order.