



# How to Free Wheelchair Mission GEN 1

Use this guide to instal a new tube to repair a flat tire.

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# INTRODUCTION

This guide will show you how to remove a punctured tube and replace it.

Read through the [Free Wheelchair Mission GEN 1 Tools guide](#) guide to familiarize yourself with all the tools necessary.

## TOOLS:

- Tire Levers (2)

## PARTS:

- Large Wheelchair Frame (1)
- White Plastic Chair (1)
- Large Back Wheel (1)
- Small Front Frame (1)
- Air Pump (1)
- Brakes (1)
- Axel Plates (1)
- Footrest (1)
- Small Front Wheels (1)
- Large Bolts (1)
- Large Nuts (1)
- Small Bolts (1)
- Small Nuts (1)
- Black Bolt Bracket (1)
- Nut (1)
- Free Wheelchair Mission Custom Multi-Purpose Tool (1)

## Step 1 — Remove Rear Wheel



- Unscrew the axle bolt Using the Free Wheelchair Mission Custom Multi-Purpose Tool on the bolt head and a 19mm crescent wrench on the nut.
- Remove the wheel and set it aside.

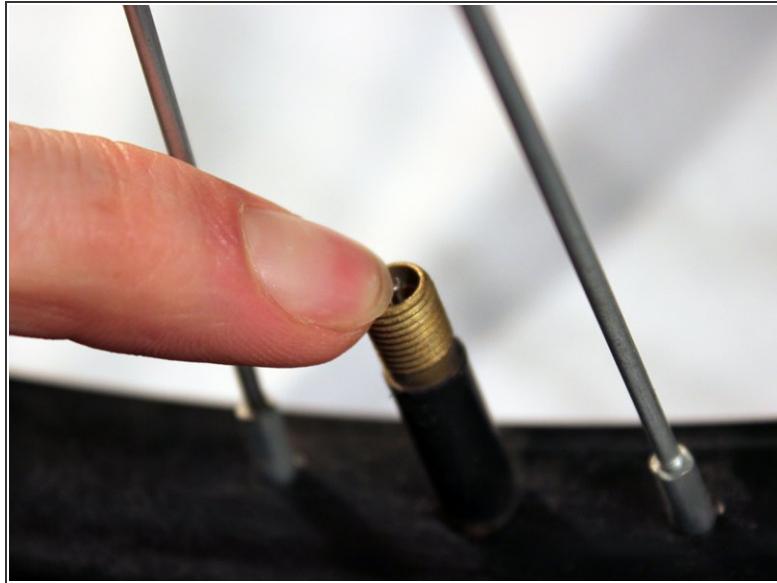
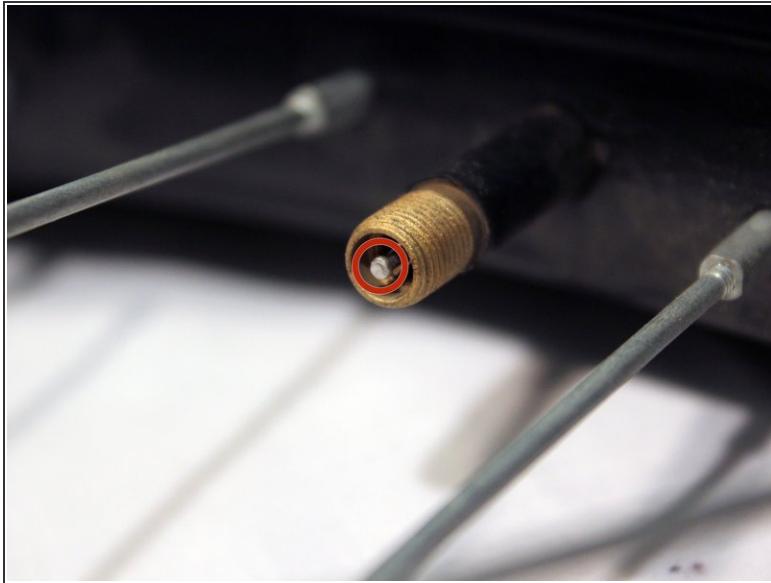
*(i)* You can also use a 19mm socket instead of the multitool.

## Step 2 — Remove Cap of Tube Stem



- Unscrew the cap of the tube stem and set it aside.

## Step 3 — Release Air From The Tire



- Release any air that remains by pressing down on the piston in the head of the stem.

## Step 4



- Take a tire lever and fit it under the edge of the tire.
- Pop the edge of the tire out of the rim of the wheel by pushing down on the lever.
- Clip the opposite end of the lever onto the closest spoke.

## Step 5



- Take another tire lever and repeat step 4 roughly 2.5 inches away from where you are holding the other tire lever.

## Step 6



- Holding one tire lever in place, slide the other lever around the rest of the wheel until the side of the tire is completely free of the rim.

## Step 7



- Push the stem of the tube back through the hole in the rim it comes out of.
- Reach under the tire and pull the tube out.

## Step 8



- Unfold the new tube and unscrew the cap of the stem.
- *(i)* Set the cap aside someplace safe. You will need to put it back on later.

## Step 9



- Fit the stem of the tube firmly into the hole in the pump that comes on the frame.
- Lift the lever on the head of the pump up.

## Step 10



- Pull the handle of the piston at the bottom of the pump out.
- Pump a small amount of air into the tube so that it holds its basic shape.

*(i)* To pump air into the tube pull the piston out then push it back in.

## Step 11



- Push the stem of the tube through the hole in the rim so that the head is on the outside.
- Push the rest of the tube under the tire so it sits evenly on the rim.

## Step 12



- Push the tire back onto the rim working your hands around the wheel.
- Pump air into the tube until the tire is firm and can support you weight.
- Screw the cap back onto the head of the tube stem.

*(i)* If you have a pressure gauge it should read around 40 psi.

## Step 13



- Put the wheel back on the axle and screw in the bolt using the multitool or 19mm socket and 19mm crescent wrench.
- *(i)* Make sure the handle faces out.