



# Sharper Image Razor Scooter (Wheel-e Series) Teardown

This teardown guide is for any scooter owner who needs to change out a part or just wants to learn more about the Razor Scooter

Written By: Mark



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## INTRODUCTION

### Introduction

In this guide, we disassemble the classic Razor folding scooter. For such a simple vehicle, they are surprisingly complex and have quite a few small parts. When you consider how much punishment this little scooter can take, it's easy to see why they are still popular as a fun, compact mode of transport.

### Safety Information

**Caution:** The mechanism which allows the scooter to fold is held together with several snap rings. Removing them requires bending and loading them like a spring - if they break or slip, the ring can be sent flying. Therefore, **use eye protection** when dealing with snap rings.

### TOOLS:

- Hammer (1)
  - Channellock Groove Joint Pliers (1)
  - Flathead Screwdriver (1)
- For prying*
- Large Needle Nose Pliers (1)
  - Nine Piece Hex Key Set (1)
  - Snap Ring Pliers (1)
  - Phillips #1 Screwdriver (1)

## Step 1 — Sharper Image Razor Scooter (Wheel-e Series) Teardown



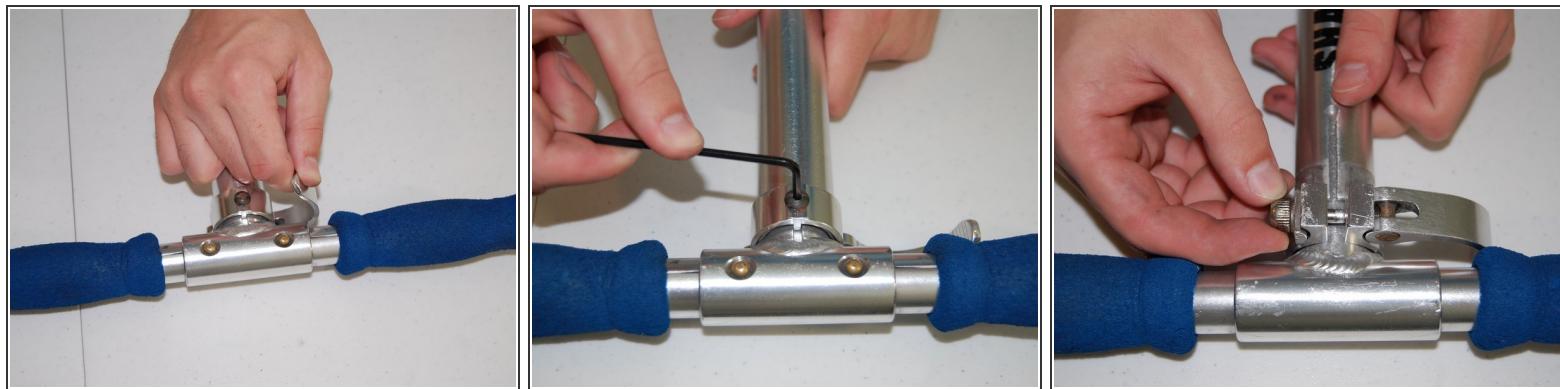
- In order to conduct this teardown you will need (depicted from left to right):
  - 1 Hammer
  - 1 Pair of Channel Lock Pliers
  - 1 Flathead Screwdriver (for prying)
  - 1 Pair of Needlenose Pliers
  - 1 Metric Allen Key Set
  - 1 Pair of Snapring Pliers

## Step 2



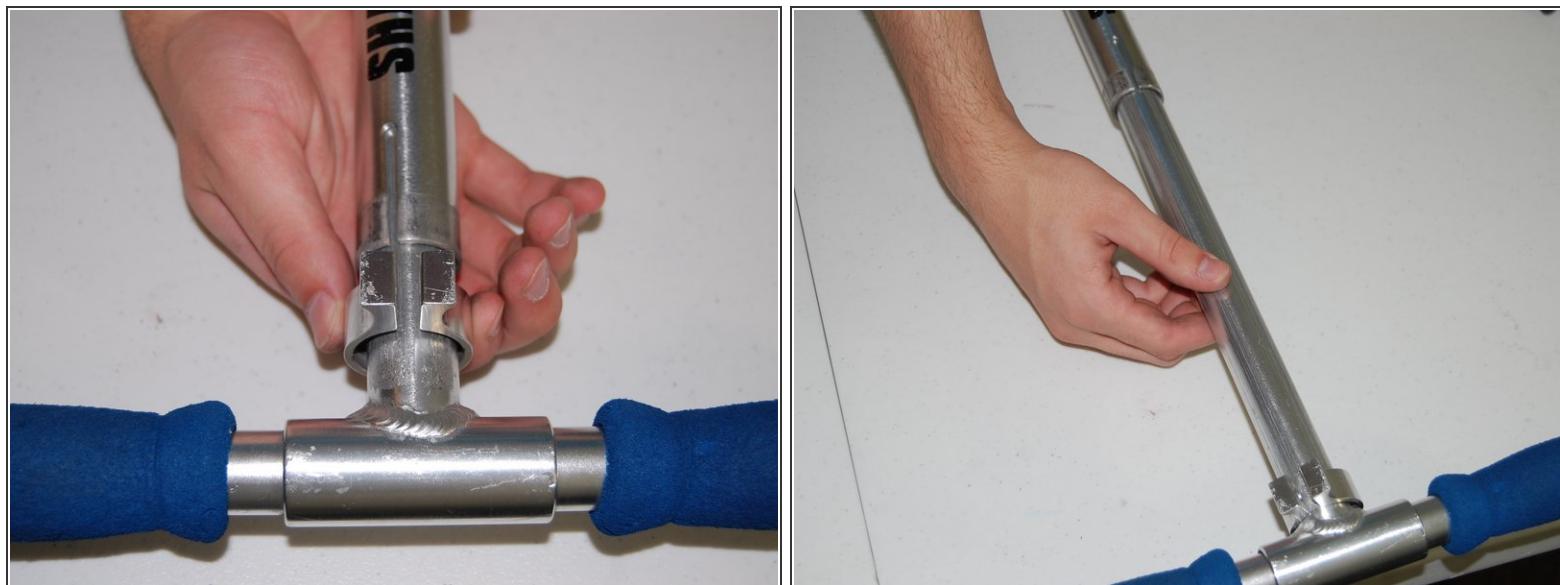
- Start by pressing the lock lever with your thumb and unfold the scooter into riding position.

## Step 3



- Take the top of the scooter and open the handlebar lock to expose the small screw underneath. (Picture 1)
- Using a 3mm allen key unscrew the single retaining screw. (Picture 2)
- Once the screw is removed the clip tightening screw can be removed by hand freeing the whole retaining clip. (Picture 3)

## Step 4



- Now that the retaining clip has been freed, slide it off towards the handlebars. (Picture 1)
- Once the retaining clip is removed the handlegrip "T" will now easily slide out of the scooter base. (Picture 2)

## Step 5



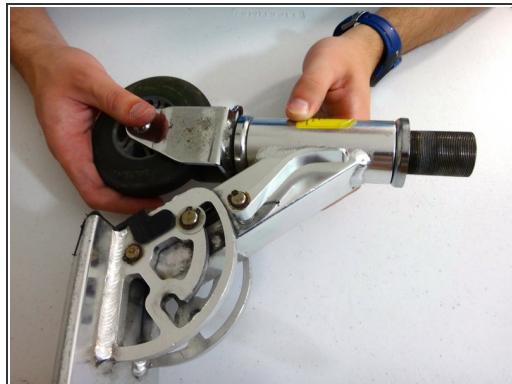
- Moving down the remaining scooter shaft, use a 5mm allen key to remove the lower retaining ring. (Picture 1)
- Now remove the remaining scooter shaft by unscrewing it from the the wheel and axle. (Picture 2)
- **Hint:** *Hold the front wheel while unscrewing the shaft to prevent the axle from spinning.*

## Step 6



- Using your hand unscrew the first nut on the axle. (Picture 1)
- **Note:** *This is the jam-nut used to stop the axle from falling apart.*
- Now using the Channel Lock Pliers remove the axle retaining nut. (Picture 2)
- **Hint:** *You may have to hold the front wheel to prevent the whole assembly from rotating.*

## Step 7



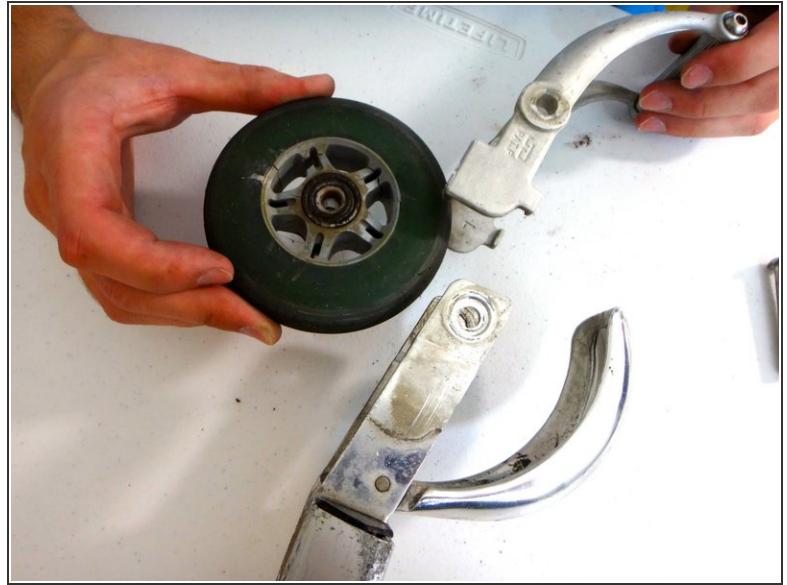
- The axle is now able to be slid out. (Picture 1 & 2)
- **Note:** *this piece could be covered in grease.*
- Now carefully remove the bearing sitting inside of the axle housing. (Picture 3)

## Step 8



- There will also be a bearing on the axle itself which can also be easily slid off. (Picture 1)
- Now that the axle is free the front wheel can easily be removed using two 5mm allen keys. (Picture 2)
- **Hint:** *If you only have one 5mm allen key, the 5mm allen key and the pair of needle nose pliers can be used instead of two allen keys.*

## Step 9



- The rear wheel assembly can now be removed using a 5mm allen key. Use the same process as that to remove the front wheel in Step 8. (Picture 1)
- The one screw will disconnect the rear wheel and the wheel-e bar from the scooter frame. (Picture 2)

## Step 10



- The brake mechanism is attached to the base by a steel pin. This pin is difficult to remove, but would be possible with a large press. (Picture 1)

**⚠ Caution: It is our recommendation that you do not attempt to remove this pin unless absolutely necessary. It will be very difficult to get back in place.**

- A torsion spring controls the actuation of the brake. (Picture 2)

## Step 11



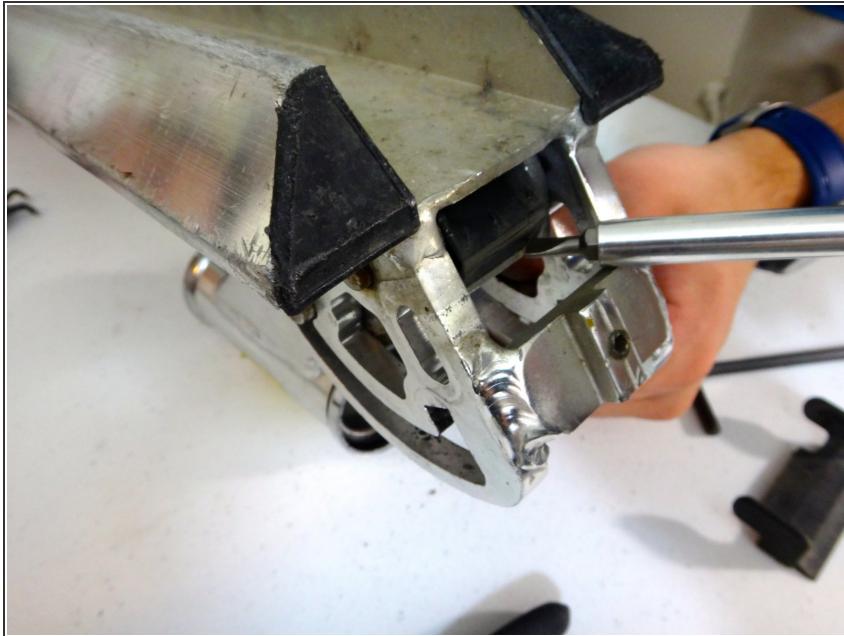
- Remove all six snap rings from the pivoting assembly. The process for using snap ring pliers is shown in Pictures 1-3.
- **Hint:** *Three snap rings are shown in Picture 1. The remaining three are on the other side in the same location.*
- **Note:** It is recommended to **wear eye protection** during this step since snap rings have a tendency to spring all over the place.

## Step 12



- Remove the black plastic piece indicated in the picture.
- **Hint:** *Use the screwdriver to get under one of the flanges. It should come off very easily.*

## Step 13



- Pry the black plastic piece from the front of the scooter. This will take some work, but the piece will come off intact.
- **Note:** *This will allow you to see the inner workings of the pivoting mechanism.*

## Step 14



- Remove the spring from the inner workings of the pivoting mechanism with the needle nose pliers.
- To remove the spring: First, pull on the visible hook, then push the hook back into the mechanism to remove the tension on the second hook.
- Leave the spring in the mechanism for now. It will be retrieved once the pins are removed.

## Step 15



- Remove all three pins from the pivoting assembly.
- **Hint:** We found it helpful to use the long bolt from the back wheel to hammer out these pins which were difficult to get out. (Picture 1)
- **Note:** Once complete, the remaining pieces should fall out as the pivoting piece is removed from the base.

## Step 16



- The teardown is now complete.

To reassemble your device, follow these instructions in reverse order.