

Freeskate Bearing Maintenance

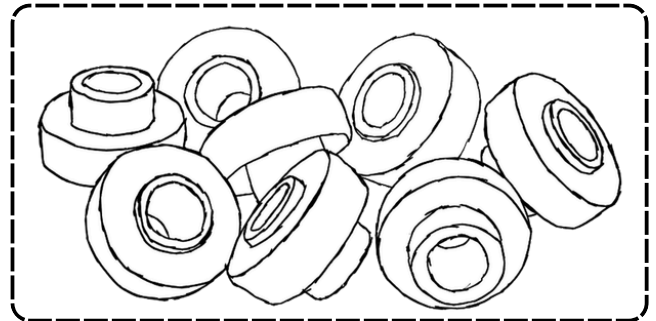
So, you've been freeskating for a while now.

Freeskating is, in my opinion, the best way to get around. You've made a good choice by picking these goofy-looking skates up and giving them a try, and now that you've practiced, you're cruising around on these bad boys every day.

Since you're using them all the time, the skates are subject to some normal wear and tear. As such, you'll need to perform routine maintenance on your skates. Maintenance refers to the regular care and repair you conduct on your skates. It entails inspecting, cleaning, and fixing parts of the skate, including the decks, grip tape, trucks, wheels, and most importantly, the bearings.

Why does bearing maintenance matter?

Bearing maintenance is a critical step in overall skate maintenance that keeps your bearings from getting damaged, makes your wheels roll smooth as butter, and extends the overall life of your skates.



This manual aims to walk you through every step, from taking apart your wheels and bearings, cleaning the bearings, lubricating the bearings, and putting everything back together so you can get back out there and skating as quickly as possible.

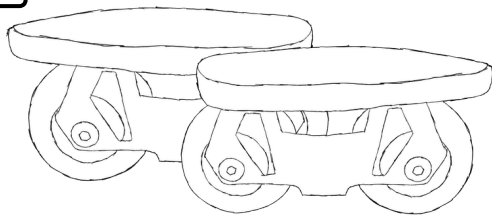
When is it time to perform bearing maintenance?

Try spinning your wheels. If they:

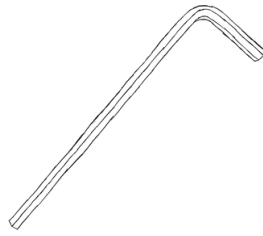
- Spin for only a few seconds before coming to a stop
- Make a coarse grinding noise, like there's dirt in the bearings
- Make a screeching noise, like there's rust in the bearings

Then it's most likely time to service your bearings!

You'll Need:



A pair of freeskates



A 5/32 inch Allen wrench

Note:

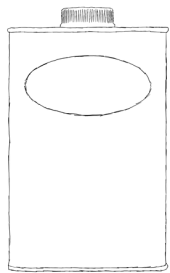
If your axle has an Allen drive on both the axle screw and the axle bolt, you'll need two of these (See Figure 1 on the next page).



A bearing lubricant

Note:

Common lubricants include Bones Speed Cream, Sabre Bearing Lube, Tri-Flow, Sewing Machine Oil, or even Synthetic Engine Oil. Personally, I swear by Speed Cream, but I've also heard good things about sewing machine oil, which is cheaper. **Do not** use WD-40. Trust me. It doesn't act as a proper lubricant and will do more harm than good.



A solvent

Note:

Common solvents include acetone, isopropyl alcohol, denatured alcohol, methyl ethyl ketone, and citrus cleaners, the latter sometimes leaving a residue on the bearing. If you choose a solvent with high water concentration, (like isopropyl alcohol,) you'll need to increase drying time after cleaning.

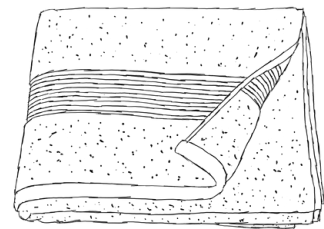
WARNING: Follow solvent instructions and use gloves as needed!



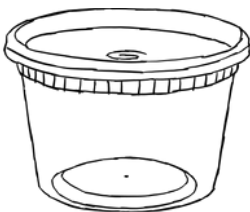
A pair of gloves (optional, depending on solvent)

Note:

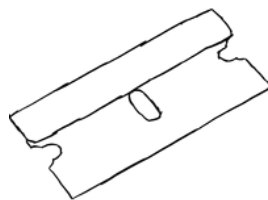
Certain gloves are better for certain solvents. Make sure you do proper research on the best option for your solvent of choice.



A towel that you don't mind getting dirty



A disposable container with a lid (1 cup capacity is ideal)



A single-edge razor blade (or other thin blade)

WARNING:

Razor blades are crazy sharp. Just don't do anything stupid, and you'll be fine.

Let's Get Started

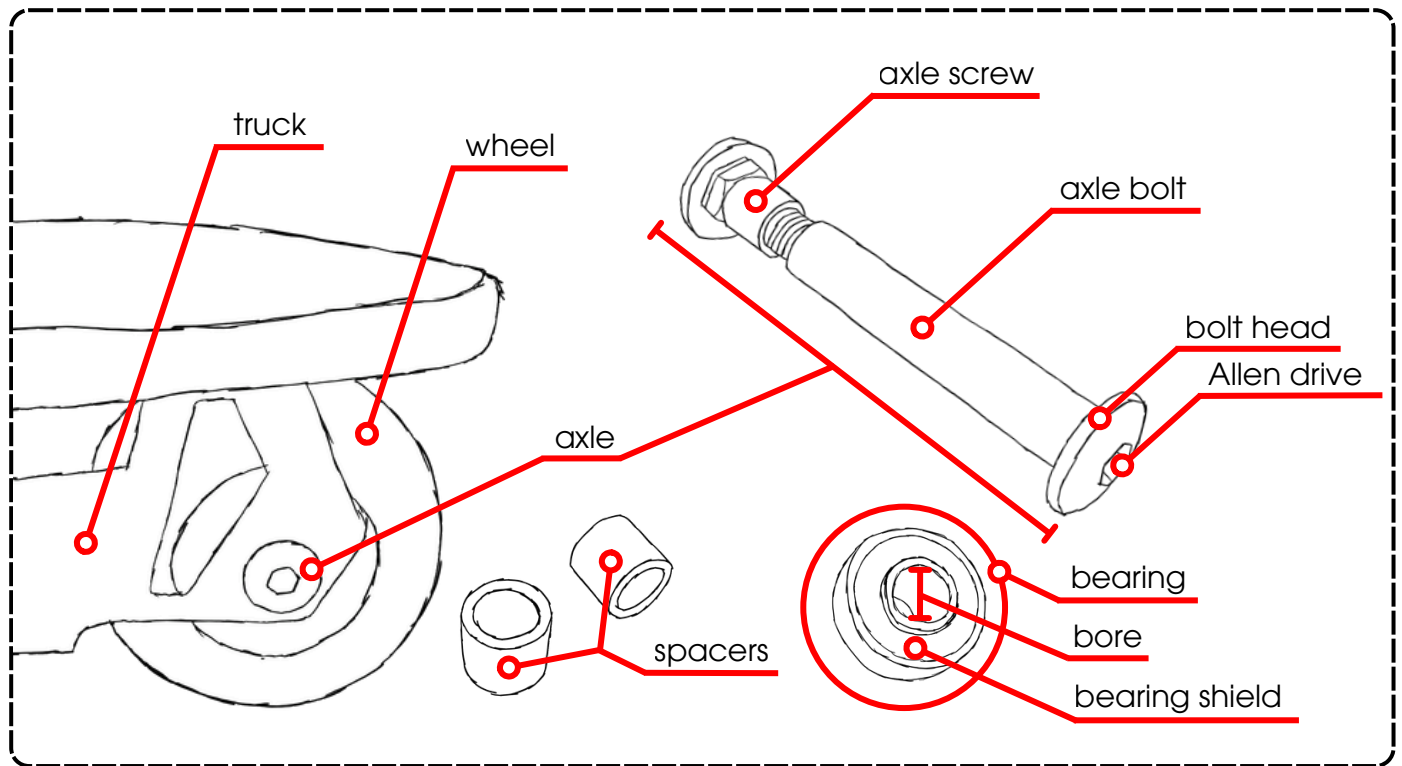


Figure 1: All basic parts of the skate that are relevant to this tutorial. If you have any confusion about parts, refer back to this diagram.

Step 1. Disassembling the Wheels and Bearings

Before you can clean the bearings, you need to remove the wheel from the skate and the bearings from the wheels. You also need to take the shields off of your bearings so that they can be cleaned and lubricated. For this step, you'll need your Allen wrench and razor blade.

1a.

Insert the short end of the Allen wrench into the Allen drive of one of your axles. (See Figure 2.) If your axle has an Allen drive on both ends, insert a second wrench on the other side to hold the axle steady.

1b.

Rotate the Allen wrench counter-clockwise until the axle bolt comes loose. (See Figure 2.) If you are using two Allen wrenches, hold one in place as you rotate the other.

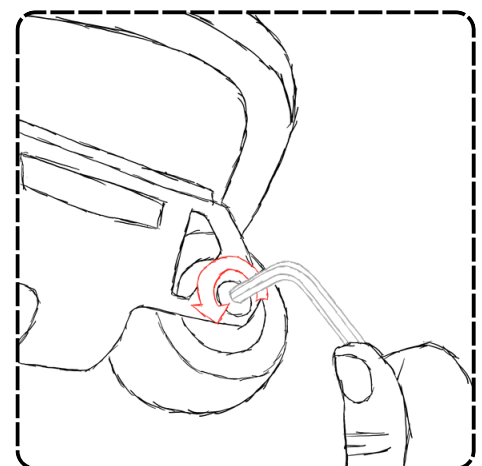


Figure 2. Loosening the axle bolt

1c.

Pull the axle bolt out of the wheel and out of the truck. (See Figure 3.) The wheel and the rest of the parts will fall out. You may set them to the side for now.

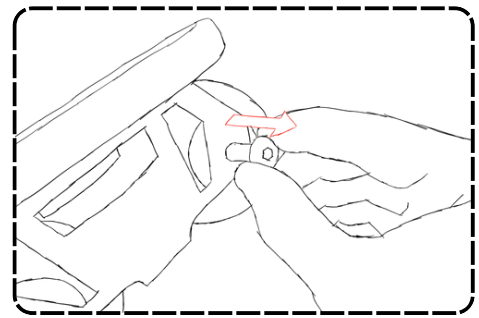


Figure 3. Removing the axle bolt from the truck

1d.

Repeat steps 1a.-1c. for the remaining 3 wheels.

1e.

Grab one of the wheels and insert the short end of the Allen wrench into the bore of one of the bearings in that wheel. (See Figure 4.)

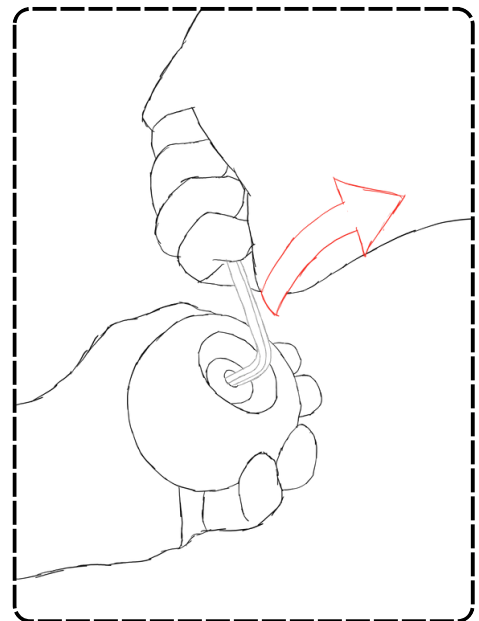


Figure 4. Removing the bearing from the wheel

1f.

Pull down and away from the wheel with the Allen wrench. (See Figure 4.) Rotate the wheel and repeat this step until the bearing comes loose.

1g.

Flip the wheel to the other side and repeat step 1f. on the second bearing.

1h.

Repeat steps 1e.-1g. for the remaining 3 wheels.

Tip for Step 1f:

This step will take a good amount of elbow grease. Make sure you don't insert the Allen wrench too far so that it touches the bearing on the opposite side of the wheel. You'll know you're doing it right when you hear the bearing creak against the plastic of the wheel.

1i.

Remove a bearing shield by carefully inserting the razor blade underneath the outer edge of the bearing shield and gently circling the shield until it pops out. (See Figure 5.) Set the shield off to the side.

IMPORTANT NOTE FOR STEP 1i:

Be very careful not to bend or cut the bearing shield as you perform this step. You want to preserve these bearing shields so you can reinsert them at the end.

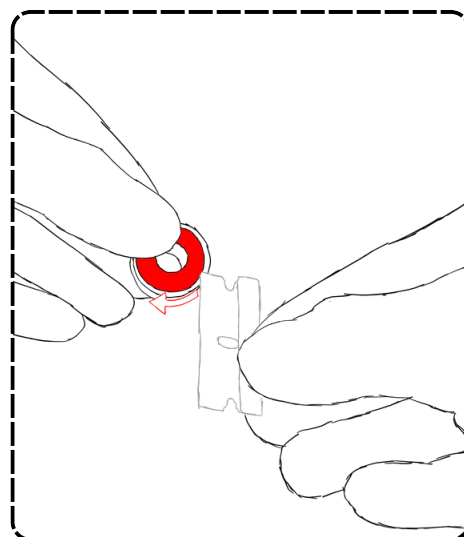


Figure 5. Removing bearing shield from the bearing

1j.

Repeat step 1i. for the remaining 7 bearings.

Great work! You're ready for Step 2.

Step 2. Cleaning the Bearings

Now that you've taken the wheels and bearings apart, you're ready to clean them by soaking them in a solvent and letting them dry. For this step, you'll need your solvent, your gloves, your towel, and your disposable container.

2a.

If your solvent requires gloves, put them on now.

2b.

Put down your towel to catch any spills from the solvent.

2c.

Put the bearings in your disposable cup and fill it with enough solvent to cover the bearings. (See Figure 6.)

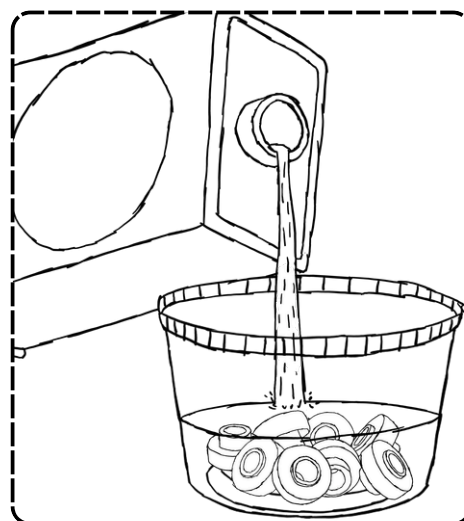


Figure 6. Pouring solvent

2d.

Close the lid and give the bearings a good shake. If your bearings are indeed dirty, the water will turn murky. (See Figure 7.)

2e.

Spin the bearings in the solvent to really get the last traces of gunk out.

2f.

Thoroughly wipe the bearings with your towel.

2g.

Set the bearings on your towel to dry. Drying times will vary based on the solvent.

Nicely done! Let's move on to Step 3.

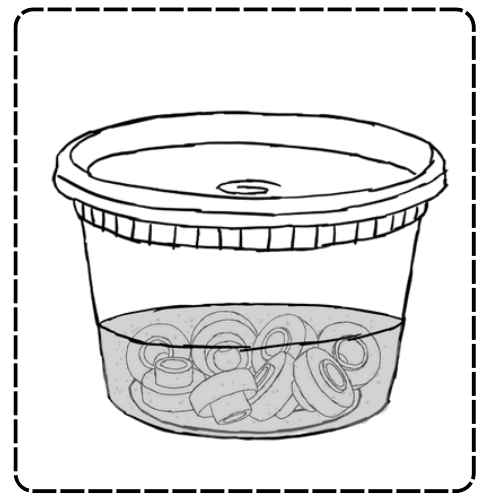
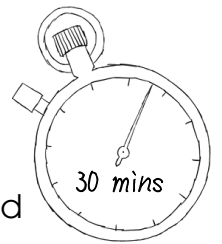


Figure 7. Shaking bearings

Tip for Step 2d:

I recommend letting the bearings sit in the solvent for 30 minutes, but if you're in a rush, you can just continue shaking them for a couple of minutes and call it good.



Step 3. Lubricating the Bearings

With the bearings all clean and dry, it's now time to lubricate them so that they stay spinning nice and smooth and so that the chances of rust are minimized. For this step, you'll only need your lubricant.

3a.

Put about 2 drops of the lubricant into the inside of a bearing. (See Figure 8.)

3b.

Spin the bearing to coat the inside with the lubricant.

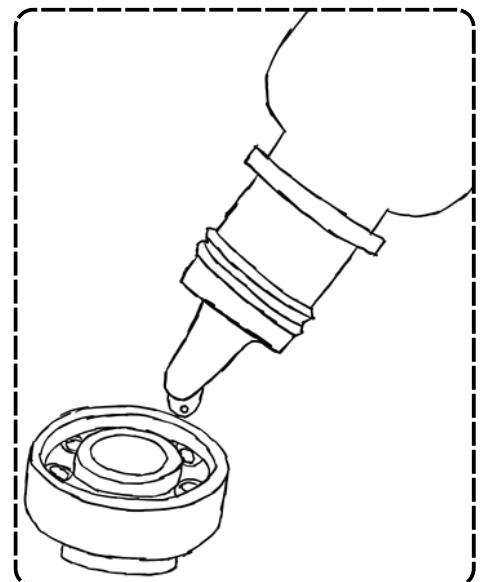


Figure 8. Lubricating bearing

3c.

Rub a bit of extra lubricant around the outside of your bearing with your fingers or the towel. This will help protect it from rust.

3d.

Repeat steps 3a.-3c. for the remaining 7 bearings.

Almost there! Time for Step 4!

IMPORTANT NOTE

FOR STEP 3:

You may be tempted to go without lubricant since your clean bearings now spin quite well without it.

Do not do this. Your bearings may work for a bit in this state, but they can quickly bind up and launch you off of your skates (and maybe into traffic).

Step 4. Reassembling the Skates

You've come a long way! Your bearings are squeaky clean (well, actually, squeaky is the opposite of what you want, but you get the idea) and well lubricated so they spin with ease. Now you've just got to put everything back the way it was. For this step, you'll only need your Allen wrench.

4a.

For each bearing, take one of the bearing shields that you set off to the side and press it back into place without bending it. (See Figure 9.)

4b.

Set a bearing into the inner part of a wheel with the bearing shield facing out.

4c.

Using the head of an axle bolt, forcefully tap the bearing into the wheel until it can't go any further. (See Figure 10.)

4d.

Flip the wheel over and repeat step 4c.

4e.

Repeat steps 4a.-4d. for the remaining 3 wheels.

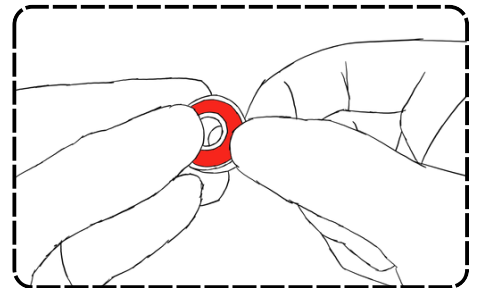


Figure 9. Pressing shield into place

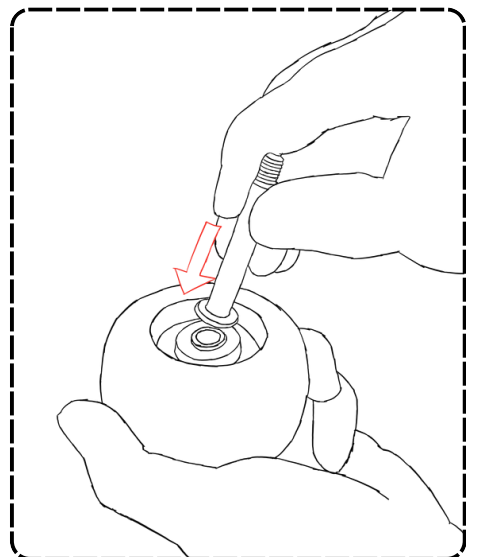


Figure 10. Reinserting bearings

4f.

In order to put the axle back in place, hold the skate vertically. The holes in the truck where the axle slides into should be straight up and down, one above the other. To simplify this process, follow steps i-iv and the corresponding diagrams to the right.

i. Push the axle bolt through the bottom hole of the truck and through one spacer.

ii. Slide the wheel into the gap between the two holes and push the axle bolt up through the wheel.

iii. Slide another spacer into the top part of the wheel, line it up with the axle bolt, and push the axle bolt through the spacer.

iv. Take the axle screw and slide it into the top hole of the truck, screwing it onto the axle bolt.

4g.

Tighten the bolts of all 4 wheels by rotating the Allen wrench clockwise. (See Figure 12.)

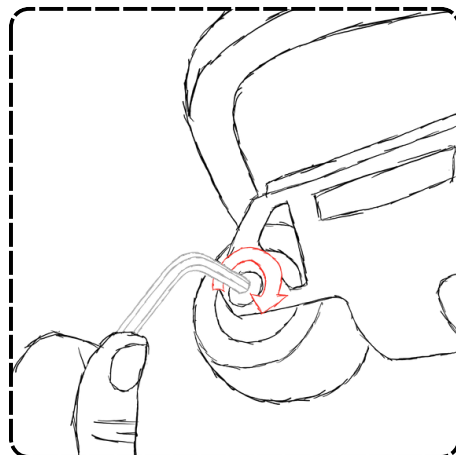


Figure 12. Tightening the axle bolt

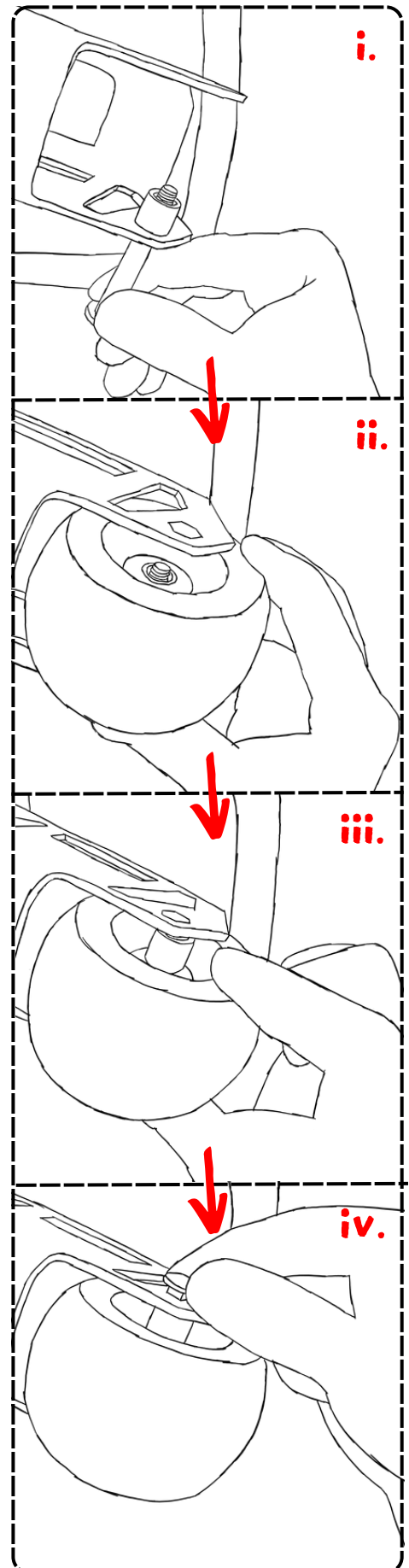


Figure 11. Reinserting axles

And with that, you're all done performing bearing maintenance!

Keeping Your Bearings in Good Condition

Having reassembled the skates, you're ready to get moving again! You'll also want to make sure you don't have to perform this maintenance more often than necessary, so here are some tips to make your life easier.

- Avoid patches of loose dirt and sand. These particles will quickly get under the shields of your bearings and make it so that you have to clean them out a whole lot sooner.
- Whatever you do, don't ride in the rain. The water will cause your bearings to rust. Sometimes, this can be cleaned, but if the damage is severe, then you'll need to purchase new bearings.
- Wipe dirt and grime off of the outside of the bearing whenever it accumulates. This will lessen the chances of that gunk getting inside your bearings.

Annnnnnnnd.... that's it!

Now that you're proficient in bearing maintenance, it's important to keep an eye on how your bearings are performing from day to day. Spin them often, listen for telltale signs that it's time for another cleaning, and have fun riding on skates that feel brand-new!

