

OneChair Clip Information Guide

By AfterFlow Mods

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Hey guys, I'm Sam from AfterFlow Modifications. It is good to meet you! If you are reading this, it might be because you're interested in suiting up your OneWheel with a chair. **Good news!** We have a solution just for that. But there are some barriers that have to be crossed in order to completely this task safely and effectively. To begin, let's go over some comments:

1. **Please wear a helmet!** It is not any safer to be sitting than standing on this device. Please use common sense. We are not liable for any sort of injury or harm done to the rider or Onewheel if improperly used.
2. **If you are printing the clips on your own, keep in mind the clips are only as strong as the plastic!** We have added our best result settings when printing in the *Printing Instructions and Comments* section on page (4). Please keep in mind that experimenting with settings and such can lead to cracking/breaking at various stress points.
3. **Follow the build guide** for the best performance out of the clips. As much as we do love print-and-go products, this does require some additional work. You can find the instructions and additional parts required along with recommendations in the *Building and Testing* section on page (2).
4. **We're learning too.** We're college students at the time of creating this product. We don't know everything that is out there when it comes to creating mods. Comments, questions, or concerns? Let us know what you think! Information can be found in the *Contact Us* section on page (5).
5. **Have fun!** We know this is very "summer camp leader" sounding, but nothing beats making a part/product/concept/prototype people can play and laugh with while using. We love the reactions from riders and passerbyers alike. Think you have some content? Tag the photo or video with #Onechair or follow us on Instagram @after.flow.

What is this all about?

To begin, this product came to be from humor. At first, we had a lawn chair simply wrapped with saran wrap on the bottom bars. This created enough friction to hold the chair in place while sitting on it. At first, we really didn't imagine it would work that well (or at all), but to our surprise, the system was not only able to be controlled both forwards and backwards, but in any desirable direction compared to standup riding. So, we went with it. Then we started to experience undesirable results (as you may imagine) with proper frictional adhesion to the Onewheel. So, with that, the OneChair Clips were created.

How to Ride the OneChair

1. **Just relax. You got this.** The learning curve is a lot like the OneWheel itself (We are assuming you already know how to ride the OneWheel. If you bought the OneWheel just to ride the chair, let us be the first to say we salute you).
2. **Most chairs (including the one listed) has enough weight to start the OneWheel on its own.** It is easier to mount the OneChair after it has been placed in an upright position and it is running.
3. **Start off slow with your feet skimming/touching the ground.** At first, you will begin to wobble back and forth. (If you continue to have this issue, we suggest you let out a little bit of air in the tire.)
4. **Try to learn to drive straight first.** Feel free to have a helper hold on to your chair on the back handle to get things going. When you want to stop, lean back to a halt, and lift the chair in the front to release the clips from the pressure sensors.
5. **Leaning to turn and driving all has to do with your core.** The center of mass for riders is found right around the rider's abdomen area, so focus on leaning with your core.
6. **PLEASE WEAR A HELMET!** Please, this is very important. Just because you are closer to the ground, doesn't mean you can't get hurt. Be safe and be smart.

Building and Testing

**Note: These clips are a work in progress/prototype, so there may be changes/additions that will be updated on this part of the document as we go along. These clips are also pending a trademark, so please do respect our efforts and do not sell these for personal profit (but gifts are awesome 😊).

Tool List:

- 3D printer (Minimum 4 x 4 x 5 inch build area)
 - We used a combination of an Ender 3D Pro (highly recommended if looking for a cheap, good printer), a CR10S, and an Ultimaker 2.

Parts List:

- Hardware
 - <https://www.mcmaster.com/91280A340>
 - For reference: Class 8.8 Steel Hex Head Screw Zinc-Plated, M6 x 1 mm Thread, 35 mm Long
 - These are the bolts that will be used to screw the top and bottom pieces of the clip together. You will need 16 of them to complete a set of clips.
 - <https://www.mcmaster.com/90576A115>
 - For reference: Steel Nylon-Insert Locknut Class 8, Zinc Plated, M6 x 1 mm Thread, 6 mm High
- Felt Blanket Sticky Pads

- This is used to create friction between the clips and grip tape, while as protecting yourself and the board. We used these felt pads from Home Depot, as we cut them to size. Anything used for furniture wood floor protection should work.
 - <https://www.homedepot.com/p/Everbilt-2-in-x-4-in-Heavy-Duty-Self-Adhesive-Beige-Felt-Blanket-3-Pack-804614/306229475>



- Beach Chair
 - Beach chairs seem to work the best as the clip hold design is the best fit. We found this chair to be the best:
 - <https://www.walmart.com/ip/Caribbean-Joe-Folding-Beach-Chair-Blue-Stripes/799432363>



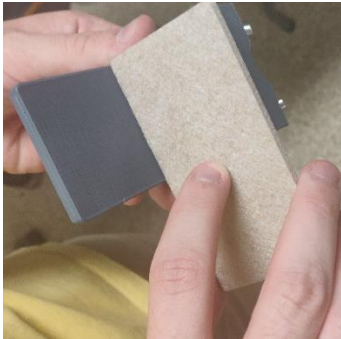
*Note: With the release of the XR V4 and Pint V2, a wider range of beach chairs is now usable as the design is adjustable.

Construction

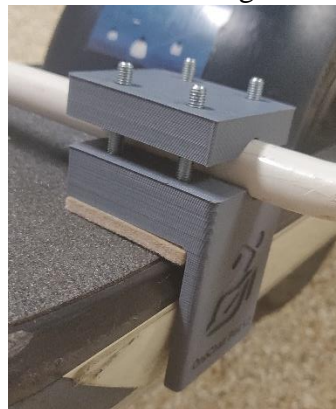
1. You will need to print the follow:
 - a. 2 Front Clips (STL files are labeled)
 - b. 2 Back Clips
 - c. 4 Top Clips
2. Take the M6 screws and insert them into the bottom side of the clip. They should fit snug and flush with the sink holes.



3. With the screws placed in the bolt holes, cut and place the felt pads on the underside of the clip, covering the bolt heads.



4. Slide the clips on the OneWheel, ensuring that a snug fit is achieved.
5. With the clips fitted on the OneWheel, place your chair of choice on top of the OneWheel, ensuring the bottom bars of the chair land within the top groves of the clips.
6. Take each top clip and fit it over the bolts where the holes are found. Slide it down so the bottom of the top clip fits the chair bar within the groove.



7. Take the M6 locknuts and secure them tightly with a ratchet or wrench.



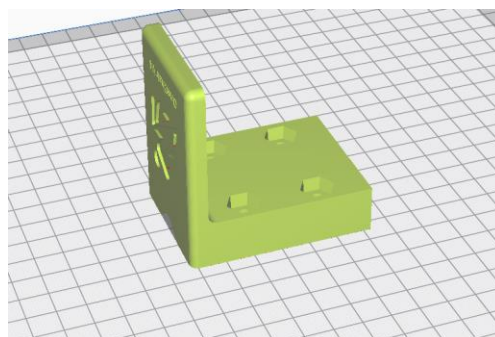
8. To test, wiggle top of the chair pressing downwards. The board should more or less swing with the chair if properly secured.

Your OneChair is now complete!

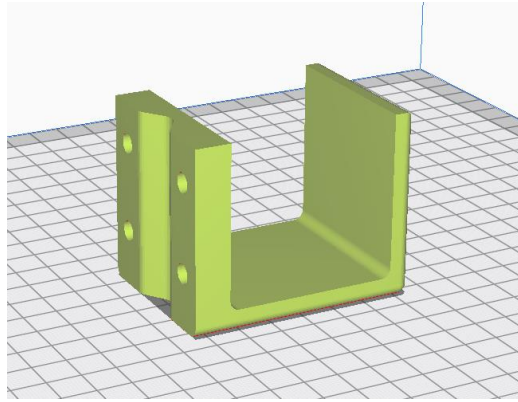
Printing Instruction and Comments

As mentioned before, the clips are not perfect. But here are some suggestions and settings we used with our printer:

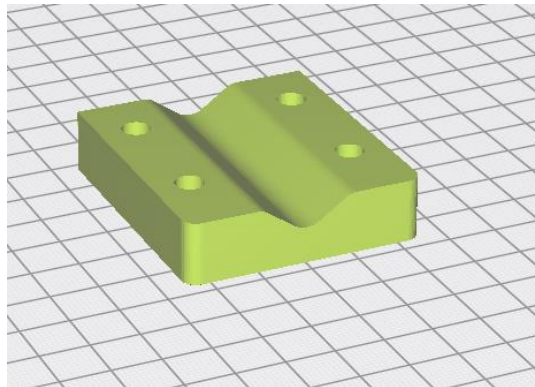
- **The best plastic we found to work was ASB.** Unfortunately, PLA plastic is simply too weak to support the constant bashing and support when riding. We do plan to test Nylon in the future.
- **Infill density is rather important when printing the clips.** We suggest nothing less than 50% infill, around 70% to 80% is perfect. 90% and above is not necessary and in most cases caused us more issues.
- **Shell height and other such quality parameters are not entirely important for these clips.** The print time can be greatly reduced when bringing down the shell layer height and does not affect the performance of the clips (to our knowledge).
- **Printing with supports is recommended.** The best orientation for each clip is pictured below. To ensure the bolt holes are properly printed, generated supports is necessary.



Top clip orientation



Back clip orientation



Top clip orientation

Keep in mind that cracks and abrasion can form from use on these clips. Use at your own risk if you recognize anything of the sort!

Contact Us

Have a question, comment, or concern? Maybe want to let into our prototyping team?

Let us know at:

Email: Afterflow.mods@gmail.com

Instagram: after.flow

Thank you so much for your support and ride on 🙌!