

Charge and Ride (CnR)

While charging while riding is awesome, remember that this is a hack that allows you to do something that was not considered in the Onewheel's design. If you follow the directions and remain aware of what you are doing, there should be no problems. However since the Onewheel has no safeguards related to charging while riding, it is not completely without risk.

1. Plug the connector in to the board. It should be a very tight fit.
2. Plug the cable into the charger. Wrap it one time through a belt loop or backpack strap to insure that if you jump off the board, the cable will pull against the plug and not the charger connector.
3. Plug the barrel connector of the cable in to the plug. Check that the switch is in the off position. Off is down, toward the plug. On is up, to "charge up" the Onewheel.
4. Power up the charger.
5. Turn on the Onewheel. Always turn on power to the Onewheel before switching on charging.
6. Flip the switch to On (Up) to begin charging.

With CnR, charging appears to the Onewheel as regen. This gets added to the natural regen created while going downhill. When the maximum regen current is reached, the board might shut down to protect itself, or the battery may be damaged. To insure that CnR does not push the board over its limit, use the switch to turn off charging when approaching a downhill section.

If the Onewheel goes into low battery pushback, it may refuse to balance even though it didn't power off, and you have begun recharging. Because the Onewheel always shuts off when unplugging the standard charger, it expects that a restart will happen before the battery has charged enough to ride again. If the Onewheel will not balance, turn off charging, turn off the Onewheel. Turn the Onewheel back on, turn on charging, and then try again.

There may be other times the Onewheel needs a restart, such as after the wheel spins out trying to go over an obstacle or steep rise. Always turn off charging before restarting. Because CnR looks like regen, and regen cannot happen when the board is not powered on, keeping charging turned on while the board is off or powering up can confuse the controller.

CnR allows non-stop riding so long as the battery is not depleted faster than it charges. At 5A, a Onewheel+ can recharge in about 25 minutes. If you ride fast enough, or uphill enough to deplete the battery in less than 25 minutes, you might need to stop and let the charge catch up. For iPhone users, Float Deck is an excellent app for CnR. It provides battery level voice prompts over bluetooth in smaller increments than the official app. This makes it easy to keep track of whether the charge level is rising or falling as you ride.