

Lithium battery and button battery safety

Many of the kits are for younger people please read this as a guide to their safety [Keeping Children safe from button batteries](#)

LiPo batteries are generally safer and more environmentally friendly than other batteries like NiCd and NiMH. LiPo batteries have become the most common high performance battery and are used in model cars, boats, planes, drones, computers and more. However, if charged, discharged, stored, maintained, or handled improperly, they can become extremely dangerous. This is a simple guide for safe LiPo battery ownership and use. This guide applies to all LiPo batteries.

1. Never charge, discharge, use, or store a damaged or puffy LiPo battery. Immediately [dispose of the battery](#). Only ever charge LiPo batteries that are designed to be recharged, check with the manufacturers datasheet.
2. Avoid purchasing used LiPo batteries. You never know what the previous owner did with them and they could already be badly damaged. "LiPo Battery Like New, Used Once" is usually a scam and should be avoided.
3. Always use a proper LiPo battery balance charger/discharger when charging and discharging your LiPos. It is crucial that all cells in a LiPo battery maintain the same voltage across all cells at all times. If the voltages across the cells deviate too much from each other (5mV ~ 10Mv), the battery can become unstable and dangerous. (Unless it's a single cell LiPo, in which case you do not need to worry about cell balance).
4. Always ensure you use the correct charger for your batteries, Don't overcharge and don't leave them unattended whilst charging or in use.
5. Never discharge a LiPo battery below 3.0v per cell. Ideally you never want to go below 3.2v per cell to maintain a healthy battery. 2.9v per cell and lower is causing permanent damage.
6. Always store your LiPo batteries at room temperature. Do not store them in a hot garage, or in a cold refrigerator. Even though a cold battery has less chemical reaction taking place which can prolong its lifespan, taking a battery out from a cold fridge can cause condensation to occur on the inside of the battery, which can be very dangerous.
7. Always remember that heat is the number one enemy of LiPo batteries. The hotter your batteries get, the shorter their lifespan will be. Never charge a battery that is still warm from usage, and never use a battery that is still warm from charging.
8. Depending on how they are used, most LiPo batteries typically do not last longer than 300 charge cycles. Leaving them around on a full or depleted charge all the time, running them



completely dead, or exposing them to high temperatures will shorten this lifespan dramatically.