

## LiPo Battery Basics 4

### DISPOSAL:

#### *Complete Discharging:*

Some recycling centers will accept Lithium-based rechargeable batteries, and that's always a good choice. Unlike many other battery chemistries, however, LiPos are considered safe to discard in your regular trash once they have been fully discharged. The key is making sure that they are actually fully discharged. You want the discharge to be a gradual, controlled process, so nails and pistols are considered poor tools for the job. You can discharge a trash-bound battery by connecting it directly to a large DC lightbulb (automobile tail light). I also do all final discharges on a large pad of concrete with nothing else around. Sometimes, batteries get hot and swell during this process, but rarely catch fire using this process.



Let the battery drain down to 0 volts before disconnecting it from the lightbulb. Then allow the battery to cool to ambient temperature. Once it is stable, repeat the lightbulb treatment just to make sure there is no residual energy. Lastly, connect the positive and negative leads of the battery together to create a short circuit and prevent and sort of energy recovery. After sitting for a day or two in a fireproof container (to make sure it is stable), put the battery in a Ziploc bag and place it in the trash can.

### *Salt Water Disposal:*

Salt water LiPo disposal is a bad, bad idea. Sure, on the surface it seems like a good concept - after all, salt water conducts electricity, so it makes sense that dropping the battery in salt water will discharge it. But the devil is in the details and the detail, in this case, is electrolysis. You see, salt water and electricity have an amazing talent in the field of dissolving metals, including the tabs on the LiPo cells that actually conduct the electricity. And once those tabs are dissolved, no more discharge. That's the real problem - the tabs on the cell tend to dissolve before the cells are completely discharged, leaving you with the worst of both worlds - a cell that's still got a charge, and no way to discharge it.