

# Battery Charging

## General Info

There is a dedicated battery charging station. You must use this to charge the battery.

Your battery is made up from 3 smaller cells.

This is why it is called a **3S** battery. Battery voltage is **11.1V**

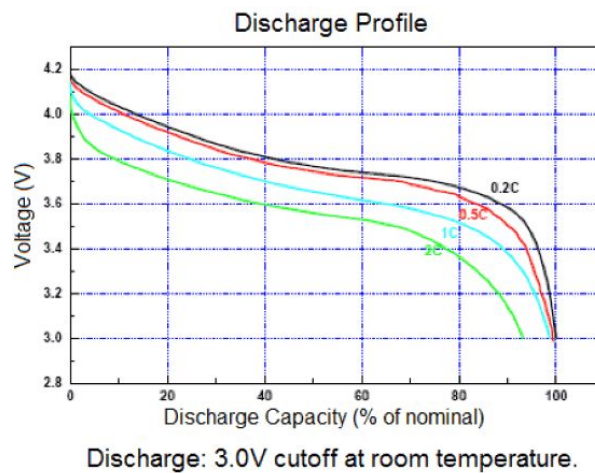
The battery current rating is **4000mA**

The battery chemistry is Lithium Polymer.

Individual polymer batteries are 3.7V or 4.2V batteries. What this means is that the maximum voltage of the cell is 4.2v and that the "nominal" (average) voltage is 3.7V. As the battery is used, the voltage will drop lower and lower until the minimum which is around 3.0V

The C rating is an indication of how much current can be safely drawn from the battery.

With a 20C battery, 80A can be drawn from the batter.



## Storage

The battery must be stored in the metal storage cabinet next to the chargers.

There are two sets of labeled draws, **Red** for used batteries, and **Green** for charged batteries.

You must not store the battery in your boxes, cabinet, or on your robot.

## Dangers

Take care of the battery, ie do not drop, or short the battery terminals.

You must use the battery protection board at all times.

Abuse of battery can result in the battery catching fire and exploding.

A few examples of battery fires...

<https://youtu.be/YCWdnjLqVWw>

<https://youtu.be/CnNI0mDnBo>