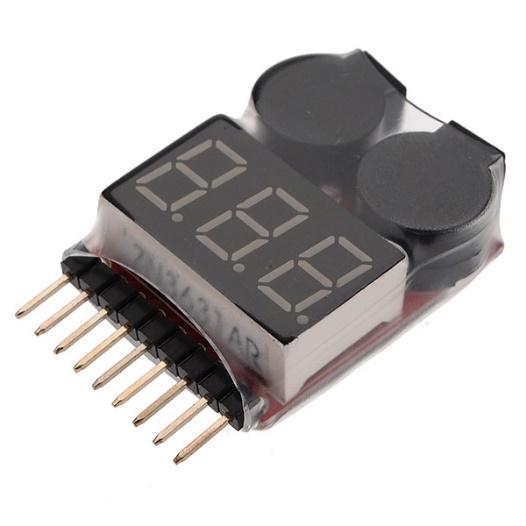
**Lipo battery testing procedure**

A battery can be considered healthy and safe to use if its internal resistance is relatively low. Internal resistance can be measured by measuring the voltage and current across the battery when a load is connected to the battery.

**Measuring voltage**

A battery voltage tester can be used to measure the voltage of the battery as well as the voltage of each individual cell. Connect the JST XH pins to voltage tester and it will automatically shows the voltage across each cell as well as the full voltage of the battery.

When connecting the battery to the voltage tester, connect the ground wire (black wire) of the battery to the left most pin of the voltage tester.

Diagram

Description automatically generated

*Voltage tester*

**Points to consider**

The typical voltage of each cell of the battery is between 3.6V – 4.2V. The battery needs to put into charge if the cell voltage is below 3.6V and it might be permanently damaged if the cell voltage is below 3.2V

Check whether every cell of the battery has roughly the same voltage level. One or more cells might have damaged if there is a significant voltage gap between two cells.

**Measuring internal resistance.**

It’s hard to measure the internal resistance of the battery as usually the resistance is in millivolts range. Use a 100W, 12V bulbs or equivalent loads to check the internal resistance. Measure the voltage drop of the battery and the output current when load is connected. Internal resistance can be calculated by dividing the voltage drop by output current. Usually the internal resistance of the battery is less than 40mΩ. the battery is not fit to use if the internal resistance is a higher value.

If wattmeter or high load cannot be found, use a 5Ω-10Ω resistor and measure the current and voltage across the battery. If there is a significant voltage drop, battery might not be fit to use.