Safety Guidelines

1. Only use the Battery Chargers in the Mechatronics Lab that are specifically designed for Lithium Polymer batteries.
   Never use NiCD or NiMH type chargers to charge LiPO batteries. Failure to do so will damage the batteries and may cause fire and personal injury.

2. Always charge batteries in a fire proof container. Do not charge batteries on wood, cloth, carpet, in your model, or on any other flammable material.

3. Never leave batteries unattended while charging. Always observe batteries when charging so that you may react quickly to any problems that may occur.

4. If a battery is deformed, swollen or appears damaged, DO NOT CHARGE.
   Return the battery to a Mechatronics staff member for disposal and a replacement.

5. Any time you have an accident with your model or if the battery swells “balloons” or if the battery exceeds temperature guidelines, follow these safety steps:
   a. Immediately remove the battery pack from your model or charger.
   b. Notify a Mechatronics staff member immediately.
   c. Place the battery in a non-flammable, well ventilated area.
   d. Observe the battery for 30 minutes from a safe distance.
   e. After 30 minutes, if the pack appears stable, is not swollen and does not show any signs of damage, return the battery pack to normal use with caution.

6. Do not let exposed battery wires touch each other. This may cause the battery to short and potentially cause a fire.

7. Store your batteries in a cool, dry place between 4-26 Cº.

8. Store battery packs out of the reach of children and pets.

Charging Instructions

1. Venom Power Lithium Polymer Power Cells feature a separate balancing plug that isolates each cell in a pack and charges it independently. This ensures that all cells peak equally and discharge at the same rate during use. The balancing plug can be identified by the multi wire Molex plug (white).

2. Make sure the battery connections are connected in the correct polarity. A wrong connection will damage the battery and may cause a fire.

3. Always check battery pack voltage before charging.
   Do not discharge LiPO batteries below 3.0 Volts per cell.
   The voltage of a typical LiPO cell at rest is 3.7 Volts.

4. Do not charge at over 1C current. C= battery pack mAh capacity ÷ 1000.
   Divide the battery mAh capacity by 1000 to determine the proper charge rate.
   Example: 800mah Capacity = 0.80 Amps.
   Do not peak charge to more than 4.2 Volts per cell.

Example: A 20C 2S 800mAh 7.4V LiPO Battery Pack contains two cells, therefore the peak voltage should not exceed 8.4 Volts.

5. Battery Temperature is critical. Please use the following guidelines:
   a. Charge Temp Range: 0-43Cº
   b. Discharge Temp Range: 0-60Cº
   c. Storage Temp Range: 4-26Cº
      For optimum performance in cold climates, warm the pack to 37Cº before use.

6. If the battery exceeds the temperature guidelines as above, isolate the battery pack and follow Step 5 from the Safety Guidelines section.

Discharging Instructions

1. Never discharge a LiPo battery pack at more than the manufacturers recommended discharge rate.
   The discharge rate is: Battery pack capacity (mAh) ÷ 1000 x Pack C rating
   Example: For a 20C 2S 800mAh 7.4V LiPO Battery Pack : (800mah ÷ 1000) x 20C = 16 Amps