

Preparation

Batteries are the powerhouse of the bot, essentially the mitochondria. Crimping and managing these batteries are essential to a successfully running robot that supplies power as it should.

I take heavy reference from the Zebracorns (Team 900's) Battery Paper.

([Team 900's Battery Paper Chief Delphi Post](#))

1. How you begin

- Cutting out the battery wire is essential, and we plan on using 12 inches of battery wire for two-gauge wire to ensure strong connectivity.
- From there, the wire must then be stripped and crimped unto the lug crimp to ensure connection.
- You will also need to crimp the other end of the battery wire for it to be put into the SB Connectors.

2. Connection to the terminal...

- Use of any washers can reduce energy transfer and we usually cover our terminal connection with electrical tape and heat shrink.
- You know your battery isn't working optimally if it shows visible signs of poor connection to the terminal.

Good way to check your batteries at comp:

Battery Types:	Comp/Match (grade A)	Practice (grade B)	Pit Testing (grade C)
Internal Resistance:	$IR \leq 0.015 \Omega$	$IR \sim 0.015\text{--}0.020 \Omega$	$IR \sim 0.020\text{--}0.025 \Omega$
VOC:	13.1-13.2v	12.5 – 12.8 V	12.2 – 12.5 V
Vload (18amps):	> 11.8 V	11.3–11.8 V	10.8–11.3 V

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