# **How-To:** charging Batteries for the X-Copter

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**Info:** This little tutorial describes how to charge our batteries for the X-Copter-Project

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|  | **Identifier:** | **Information:** |
| **Hardware:** | **Battery1 (LiPo\_01)** | **Name:** FlightPower Hacker evo 20 4900mAh 6S1P  **Charging:** continuous: 20C, burst: 50C, charging: 1C  **Stored in:** Speicher[31] as LiPo\_01 |
| **Battery2 (LiPo\_02)** | **Name:** XTRON 40C 5000mAh 6S1P  **Charging:** continuous: 40C, burst: 80C, charging: 4C  **??** **Stored in:** Speicher[20] as LiPo\_02 |
| **Battery3 (NiCd\_01)** | **Charging:** loading current: 110mAh  **Stored in:** Speicher[19] as NiCa\_01 |
| **Charging-Station:** | Ultra Duo Plus 60 |

We saved three configurations in the Ultra Duo for our batteries named: Lipo\_01, Lipo\_02 and NiCd\_01

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| **Battery Overview** | | **LiPo\_01** | **LiPo\_02** | **NiCa\_01** |
| Cell-Count: | | 6 | 6 | 4 |
| **Nominal** | Cell-Voltage | 3.7V | 3.7V |  |
| Total-Voltage | 22.2V | 22.2V |  |
| **Max.** | Cell-Voltage | **??**V | **??**V |  |
| Total-Voltage | **??**V | **??**V |  |
| **Min.** | Cell-Voltage | 3V | 3V |  |
| Total-Voltage | 18V | 18V |  |

**Important:** Warnings and security information are found in the documentantion-pdf:

6478\_ULTRA DUO PLUS 60\_de.pdf

You should read that before using the charging station as the information therein will not be in this tutorial.

# Charging Batteries:

**Current charged per charging session** = current \* charging time

Refer to the datasheet of your batteries for information about max. current for charging.

**Standard-charging-current** is 1/10 of the capacity (1,7Ah capacity -> 170mA standard-charging-current)

1. Connect charging cables to charging station (red = Plus, black = minus)
2. We will use the CC-CV charging-mode for our batteries as fast-charging is too risky