

Project Description

In this project a charger for an electrical bike has to be built. Only, the battery cells are provided by the client.

The project team is free to design the battery pack with the smaller batteries, regarding to size and capacity. The project team assumes the motor of the bike and therefore as well the possible runtime of the bike.

Requirement specification of the charger

Battery

Power capability	10 Ampere hours
Battery profile	CC = 5Ampere; CV = 42Volts
Maximum output current	80 Ampere
Chemistry type	Lithium-Ion
Cell size	Battery pack

Motor

Motor Voltage	36 Volt
250 Watt	

Charger

Output Current	5 Ampere
Output Voltage	30 – 42 Volt
Charger input	36 Volt
Display	Yes
Over charging protection	Yes
Intelligent charger	Yes
Battery monitoring	Yes
Charging time monitoring	Yes
Temperature Control Battery	Yes
Charging Mode	CC / CV