

(<https://www.dfrobot.com/product-2070.html>)

Introduction

This Charger - MicroUSB is designed for single-cell 3.7V lithium battery. With its tiny body, you can easily integrate it into your applications. The charger adopts TP4056X lithium battery charging IC, which guarantees you quick and safe charging. Three output current modes can be easily switched by selecting different bonding pads on the backside (The default output current is set to 50mA). The thermal feedback inside the TP4056X can automatically adjust the charging current to limit the chip temperature under high power operation or high ambient temperature conditions. Plug this charger into power source via its micro USB port, the LED on the charger will flash when no battery is not connected; keep on when charging and go off when the battery is fully charged. So, this LED would consume nothing of your battery. Meanwhile, you could plug an external indicator so that it would be convenient to check the charging situation when the charger module is integrated into your applications. There are 3 charging stages provided: trickle charge, constant current charge and constant voltage charge, which guarantee the safety and save the time.

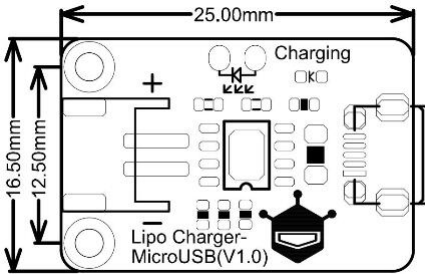
NOTE: Low current mode can be used to charge a large capacity battery but high current mode cannot be used to charge a small capacity battery. The battery may explode if the charging current is too high.

Battery capacity	Recommended current
100-400mAh	50mA
400-1000mAh	200mA
1000mAh above	500mA

Features

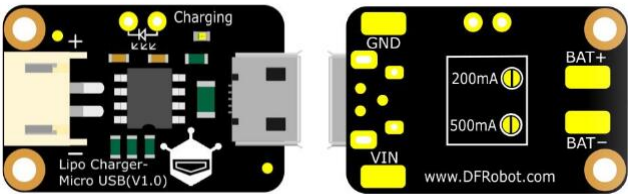
- Multiple current output modes (50/200/500mA)
- Small size
- External indicator available
- Safe and quick charging

Specification

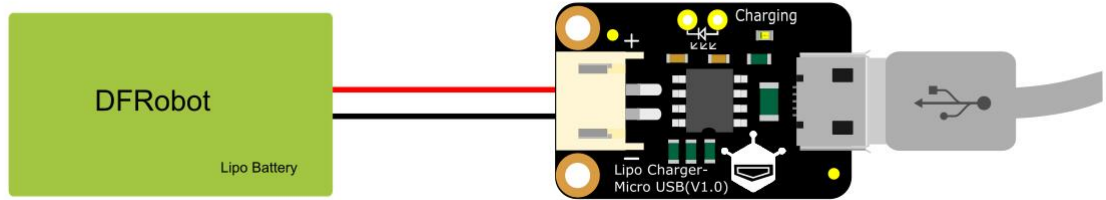


- Input Voltage: 5V
- Charging Current: 50mA, 200mA, 500mA
- Limited Charging Voltage: 4.2V±1%
- Working Environment: -40°C~85°C
- Dimension: 16.5 x 25mm/0.65 x 0.98"

Pinout



Tutorial




FAQ

For any questions, advice or cool ideas to share, please visit the **DFRobot Forum** (<https://www.dfrobot.com/forum>)

More Documents

- Schematic Diagram (<https://dfimg.dfrobot.com/nobody/wiki/07a931150cfec812ed99bab4bf5089e4.pdf>)
- Dimension Diagram (<https://dfimg.dfrobot.com/nobody/wiki/2faa2ffd1ff68bb203344680e6f5d572.pdf>)

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