

Lesson 23 How to Charge the 18650 Battery

The Adeept Robot HATV3.2 we provide include charging functions, which provide convenient charging methods for the product and provide users with more flexible and convenient power solutions. This function usually uses the USB Type-C interface, which has the characteristics of fast charging, high transfer rate and reverse plug function. The interface can also provide power to the motherboard at the same time. The following is an introduction, usage documentation and precautions for the onboard Type-C charging function of the Adeept robot control board.

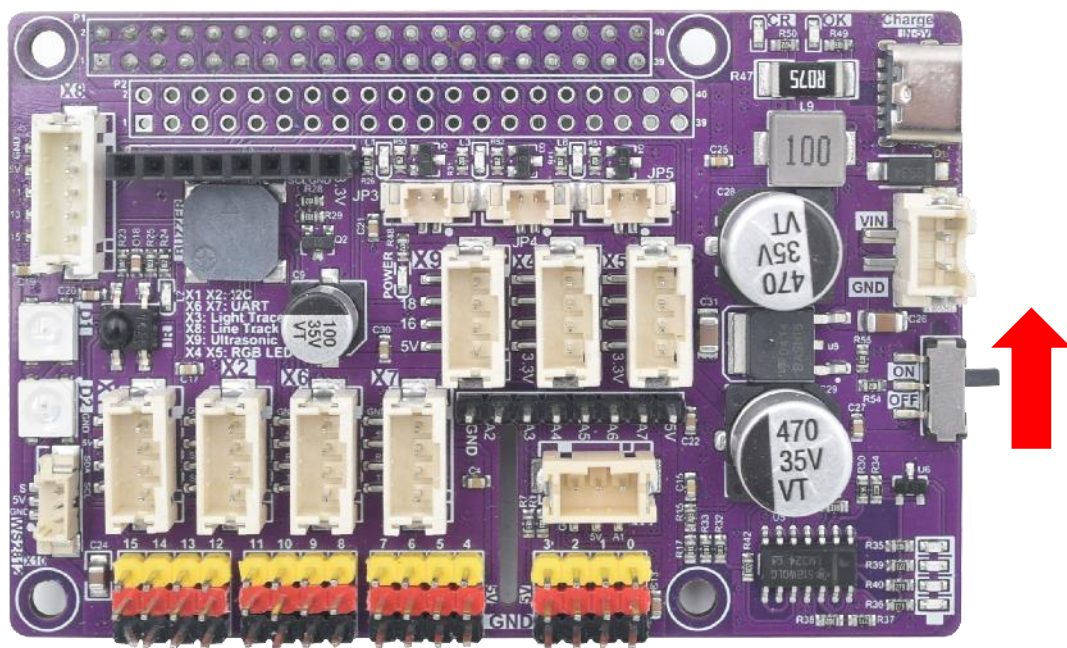
23.1 Introduction of Charging Function

The Adeept Robot HATV3.2 integrates a charging control chip and related circuits to ensure charging safety and efficiency. There are two LED indicators on the Adeept Robot HATV3.2 to show the charging status.

LED color	Description
Red LED is on , Green LED is off	Charging the 18650 battery.
Red LED is off , Green LED is on	The battery is fully charged or the battery is not connected.
Red LED is on , Green LED is on	Power is being supplied to the Adeept robot control board through the USB interface.
Red LED is off , Green LED is off	The USB cable is not connected.
It is recommended that when the product is not in use, it is recommended to turn off the Adeept Robot HATV3.2 switch and stop powering the HAT and Raspberry Pi.	

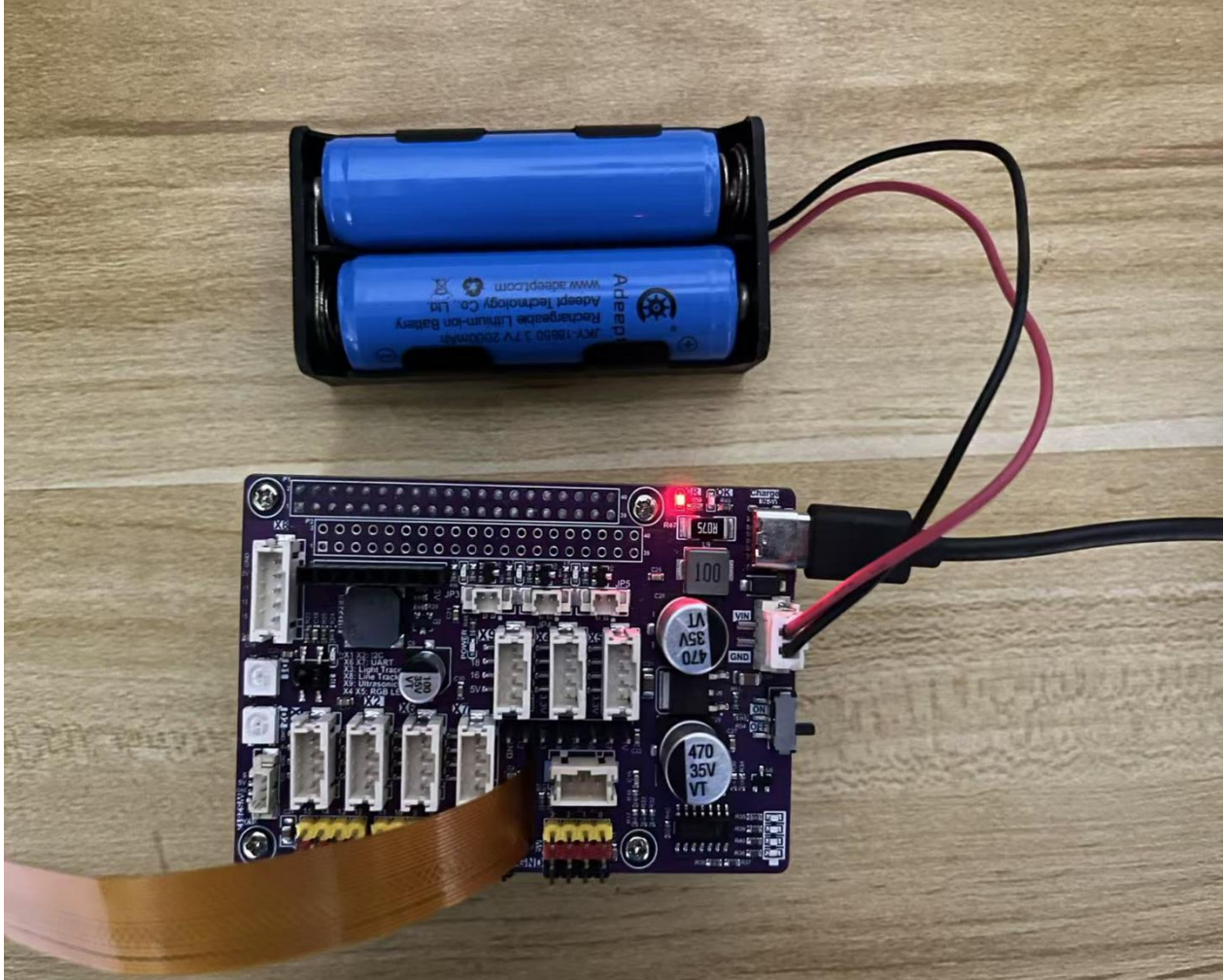
23.2 Instruction Manual

1. Turn off the Adeept robot control board switch.



2. Use Type-C cable to correctly connect the Adeept Robot HATV3.2 and 5V charger.
3. Since the charging function is built into the Adeept Robot HATV3.2 , using a larger power charging circuit will cause the charging chip to heat up and affect other circuit components on the Adeept Robot HATV3.2 . Therefore, we control the charging power within a smaller range to avoid possible damage to other components and avoid scalding users with the exposed charging chip. At this time, there will only be **slight heat on the Adeept Robot HATV3.2,**

which is normal. But the charging time will be relatively long. It takes about **2-3 hours** to fully charge two 18650 batteries.



23.3 Precautionary Note

1. Please use a 5V charger to charge the battery. to ensure safe and efficient charging.
2. Avoid use in humid and dusty environments to prevent damage to the charging interface.
3. Avoid excessive heating when charging, and do not charge in high temperature environments to avoid affecting battery life or causing safety issues.

4. During the charging process, the board will heat up slightly, which is normal. If the board temperature is too high, please unplug the power supply in time and stop charging.
5. The built-in charging function of the board ensures flexible charging and use of the product, but you still need to pay attention to safety during use.