ES120 Mini Electric Screwdriver

ES120 Mini Electric Screwdriver has set a new standard for electric screwdrivers. It is an electric screwdriver with a compact structure, smart and exquisite appearance, as well as the function of motion control recognition.

It has only the length of a Parker pen, while endowed with a comfortable design for holding, and a set of highly energy-efficient accessories. Through an OLED screen, the device displays parameters and rotation modes of motion-control recognition. Under these help, you are able to easily complete the disassembling and assembling of your digital devices.

ES120 includes a planetary gearbox and a high-speed electric motor, with excellent support from the STM32 embedded micro-processor and angular velocity sensor. It operates at a voltage range of DC3V to 5V, and with various hexagonal screwdriver bits, the device helps you with fast disengaging and engaging of electronic products.

Performance Parameters		Hardware Parameters	
Operation Voltage	3-5V	Body Material	304 Stainless steel/Copper alloy
No-load Speed	About 270rpm	Screen	16*96 OLED
Electronic Torque	2.8kgf.cm	Battery	300mAh 10440 Lithium-ion battery
Maximum Torque	30kgf.cm (manual mode)	Rotor	Bidirectional overrunning clutch
Screwdriver Bit	4M hexagon	Gearbox	1:144 Integrated planetary gearbox
Charging Time	45min	Motor	25,000 rpm brush motor
Running Time	30min (full power)	Main Chip	STM32
Charging Mode	Micro USB 5V Input	Sensor	Angular velocity sensor

Smart Functions:

1. Battery low voltage reminder, low voltage protection mode;
2. User ustomized configuration parameters (such as torsion, torque, etc);
3. Open source application layer.

Parameter Setting:
1. Press the button 3 times to enter the "setting", Wait without any action or long press to turn off "setting".
2. A model is automatic
3. 1-4 model corresponds to 4 kinds of torque, and torque decreases progressively.

Configuration file settings:

When the screwdriver is turned off, connect it with USB data cable to your PC or laptop, then short press the button, then the computer will recognize it. Open the config.txt file in the   U disk, the content is:

StartAngle=2　　　　　#(2~10)
Gear=4　　　　　　　#(0~4)
MotoTimeCont=0　　　#ReadOnly
Ver=1.1　　　　　　　#ReadOnly

Parameter name	Definition	Adjust arrange
StartAngle	Start the angle of the brake, such as set to 2, the button rotates by 2 ° and the motor starts to rotate.	2~10
Gear	Set the stalls, 0 ~ 4 corresponds to A ~ 4 files	0~4
MotoTimeCont	ReadOnly	
Version	Fixed,　ReadOnly	

Then you can change your setting.

Firware Update:
1. Please download the firware here: web site
2. When ES120 is power off, connect ES120 with PC via data cord,long press the button on ES120 until the OLED dispplays "DFU3.43", thus ES120 enters duf mode, a removable hard disk will appear in your PC.
3. Copy the hex firware to the root directory of the disk. After the extension fo the firmware changes from"hex"to "rdy",discounnect USB or triple clikck the button to exit DFU, thus the firmware is upgraded.