

Hardware List

This document will guide you through all the parts and tools you will need to build your own CREOS.

Introduction

In this detailed description you will find everything you need to know about the hardware and tools you will need for your CREOS Rehousing.

All the things needed can be found either on Aliexpress or Amazon. Of course, all of the parts are just recommended ones, so feel free to use parts to your liking as long as they fit!

We will start with the description of all items followed by a table for quick look up and all the links.

Hardware Information

First we need all the threaded inserts for the rehousing. We use M4 with a length of 4mm and a diameter of 6mm (M4xL4xD6), M3xL3xD4 and M3xL4xD5-6.

On the outside we use ¼ Inch UNC inserts which are L12.7xD8.7 mm and 3/8 Inch UNC which are L12.7xD12.6

For the screws you will need M4 countersunk screws with 15mm of length. You could also use slightly longer ones but not for the upper face.

You will also need countersunk M3 screws with around 12mm and 20mm length. Make sure to have some M3 Nuts, too.

When it comes to cables it gets slightly more complicated. There are two important FPC (Flexible Printed Circuit) cables, one for the screen itself and one for the touch-function of the screen. We will need extension boards and cables for those.

To determine the right ones, there is a certain number of pins. The larger one for the LCD has 51 Pins whereas the other one has 15 Pins. However, the pins alone are not the only important thing. There is also a difference in pin spacing, also called pitch. The right ones for us have a spacing of 0.3 mm between each contact.

For the length we recommend extensions of at least 120mm easy up to 200mm. If you use short extensions, you will have a harder time handling the FPC`s.

With 15 Pins it is very hard to find an extension board with that specific number of pins. To make it easier, we just use one with more pins (like 25) and only use the pins we need.

Make sure to be cautious with every single FPC connector and ribbon you touch as they rip very easily (we had to learn the hard way).

To secure the FPC's on the inside you should have either double-sided tape or electrical tape by hand.

In the case of a ripped cable there is still hope. We have found a cheap working aftermarket display on Aliexpress, which works perfectly. However, this one is not available anymore so you might have to try any of them. Same goes for the button-pad of the EOS-M, we have not yet found any fitting/working spare part. It will probably be best if you order multiple different ones to see if you find a working one as they are quite cheap.

For the fan-setup we use a dual 40mm USB fan which can be controlled in speed. Of course, you can use any fan you like.

For power source you have lots of different options. We decided to use a V-mount D-Tap converter for multiple reasons:

This gets quite techy now but we will try to keep it short.

If you use a D-tap (16.8V) to camera-power (7.2 - 8.4V) adapter you will only have one voltage conversion. Whereas if you use USB to camera power, you will have at least two conversions. The first one on the USB-source, like a power-bank, to convert from the internal battery Voltage (most of the time 3.7V) to 5V and then the second one from 5 Volts to somewhere between 7.2-8.4V for the camera. This need not be a problem but with a cheap converter you could experience unstable voltage therefore having weird issues while filming.

In summary, using a D-tap converter with a dummy battery would be the technical better solution, but any other converter for external Power-Sources may work just as fine.

Needed Tools

There are some tools you will need for rehousing your EOS-M.

Let us start with the most obvious one, a 3D-Printer. In order to print all the parts, you either need access to a 3D-Printer or use a dedicated service which will print the parts for you and ship them to you. For a detailed description of the 3D Printing Process, check out our 3D-printing guide.

After printing you will need to put in the threaded inserts. For that you need to use a soldering iron ideally with dedicated heat insert tips.

For the whole building process, you should have an assortment of screwdrivers or bits of small sizes in order to take apart the camera.

Of course, a pair of fine tweezers will help you with the cables.

Also make sure to have a box where you put all your small screws and camera related parts in during the rehousing process.

As it comes to cable management, zip ties are never a bad idea so make sure to have some small ones available.

Hardware-List

Item	Item-Option	Price each on	Quantity	Link	
		02/21/2025			
D-Tap Converter		17.45€	1	Aliexpress	
Ribbon Cable	150mm, A-Type or B- Type, 15 Pins	2.34€	1-2 *g	<u>Aliexpress</u>	
Ribbon Cable	150mm, A-Type or B- Type, 51 Pins	2.99€	1-2 *g	<u>Aliexpress</u>	
Extension Board	25 Pin	2.64€	1-2 *g	Aliexpress	
Extension Board	51 Pin	3.33€	1-2 *g	Aliexpress	
M4 Screws	M4 x 20 Pieces, 16mm Length	2.12€	2	<u>Aliexpress</u>	
M3 Screws	M3 x 50 Pieces, 12 mm in Length	2.15€	1	<u>Aliexpress</u>	
M3 Screws	M3 x 50 Pieces, 20 mm in Length	2.55€	1	<u>Aliexpress</u>	
Heatsinks	<u> </u>	1.5€	1	Aliexpress	
M3 Nuts	50pcs M3	1.91€	1	Aliexpress	
1/4 Inch Thread Inserts	A 1 4x12.7x8 20pcs	4.71€	2	Aliexpress	
See optional for higher Quality ones					
Thread Inserts Assortment	Casket Set E	11.47€	1	<u>Aliexpress</u>	
3/8 Inch Thread Inserts	3/8"-16 (15PCS)	10.07€	1	Amazon	
40mm Dual USB Fans	40mm	15.12€	1	Amazon	
M1.6 Screws for Button panel	M1.6, 5mm in length	1.46€	1	Aliexpress	
Optional:					
Higher Quality ¼ Threaded Inserts (Overall better fitment)	1/4" - 20 (20pcs)	10.07€	2	Amazon	
Spare Screen if yours gets damaged (the one we tested is not available anymore)		35.57€	1	Aliexpress	
Double sided Tape	10mm	2.08€	1	<u>Aliexpress</u>	

^{*}g = good to have a spare

Tools-List

All the tools are just simply examples of what you should have. We did not test any of them so you may want to look at reviews to get a feeling of the quality.

You only need the soldering iron to put the threaded inserts in, so you don't need the highest quality ones.

Item	Item Option	Price	Link	
Soldering Iron (For	80W Set-2	7.36€	Aliexpress	
Threaded inserts)				
Lower Quality				
Screwdriver Kit	115 in 1 gray	€4.57	<u>Aliexpress</u>	
Optional				
Thread inserting Tips		2.05€	<u>Aliexpress</u>	
Organizer Box for		2.64€	<u>Aliexpress</u>	
Screws and parts				