



Box for DJI Mini 4 Pro and accesories



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Summary

A collection of Boxes that fit following Items: Drone (DJI Mini 4 Pro) | Remote (DJI RC2) | Batteries (Fitting 2pcs)

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Tags: [box](#) [drone](#) [container](#) [storage](#) [dji](#) [mini4pro](#)

Introducion

The compact and lightweight design of the Mini 4 Pro makes this drone great for travelling. Sadly, there was no safe way to transport it - **until now!**

The Basics:

The complete set contains three types of boxes. They are designed to fit all essential components of the fly more combo kit. There is...

...a Box fitting the **Drone** (DJI Mini 4 Pro)

...a Box fitting the **Remote** (DJI RC2) and the DJI **ND Filter set**

...a Box fitting the two remaining **flight batteries**

Update log

Update #1

- Added the .STEP files (as requested by @JeanBrito).

Printing and Assembly

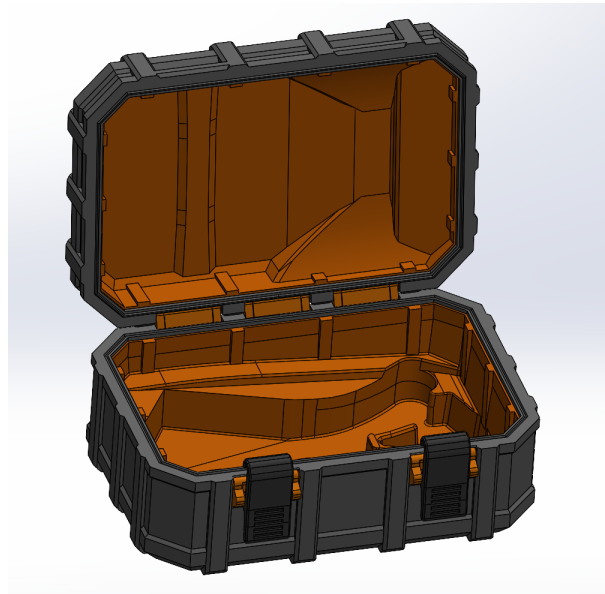
You have the choice:

There are three options available for printing.

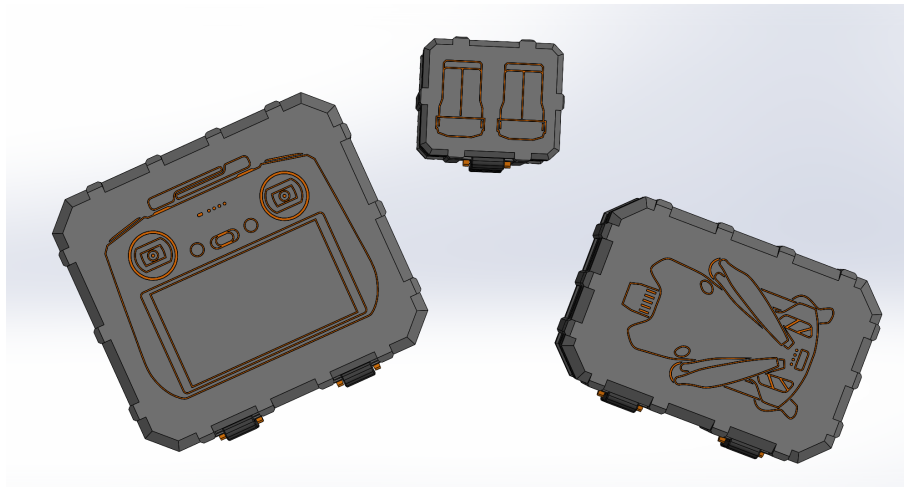
- Option 1: You are here for functionality and simplicity? This is the option for you! Both halves of the boxes are printed as a single piece. This option is the **easiest to print** while using **less time and material**.



- Option 2: You are ready to accept using a bit more effort and material to get a **great looking part**? You might want to go for this option! Both halves of the boxes consist of two parts. That allows a multicolored part - without using an multi-material printer. (You can find detailed informations on how to print below.)



- Option 3: You want to go all in for that **extra bit of detail**? You are ready to dive into the advanced settings? Here comes option three! This option is basically the same as option two. Additionally there is a little symbol “engraved” on the top of each box that shows what’s inside of it. (Information on how to print is also listed below.)



You found an option that fits you? Great! Let's start printing!

Printing

Required parts:

If you use 1.75mm filament you already have everything you need. If not, I'm sure you can find something with that diameter at home or in your local hardware store.

Here's an overview of which parts you need, depending on your chosen option:

Main Parts by option					
Option 1	1x	box-XXX-bot_SINGLE.stl		Box; bottom	
	1x	box-XXX-top_SINGLE.stl		Box; top	
Option 2	1x	box-XXX-bot_2-PARTS.stl		Box; bottom	
	1x	INLAY-XXX-bot.stl			
	1x	box-XXX-top_2-PARTS_BLANK.stl		Box; top	
	1x	INLAY-XXX-top.stl			
Option 3	1x	box-XXX-bot_2-PARTS.stl		Box; bottom	
	1x	INLAY-XXX-bot.stl			
	1x	box-XXX-top_2-PARTS_ENGRAVED.stl		Box; top	
	1x	INLAY-XXX-bot.stl			
	1x	box-XXX_engraving.stl			
Additional parts by type of box					
		clip.stl	lever.stl	hinge.stl	bushing.stl
Drone		2x	2x	3x	16x
Remote		2x	2x	3x	16x
Battery		1x	1x	1x	6x

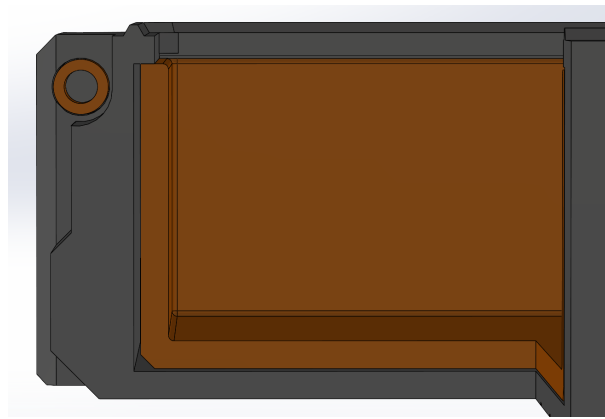
Print settings:

Layer heights over 0,2mm are not recommended, everything else is up to you. There are no supports needed.

Printing the 2-part version:

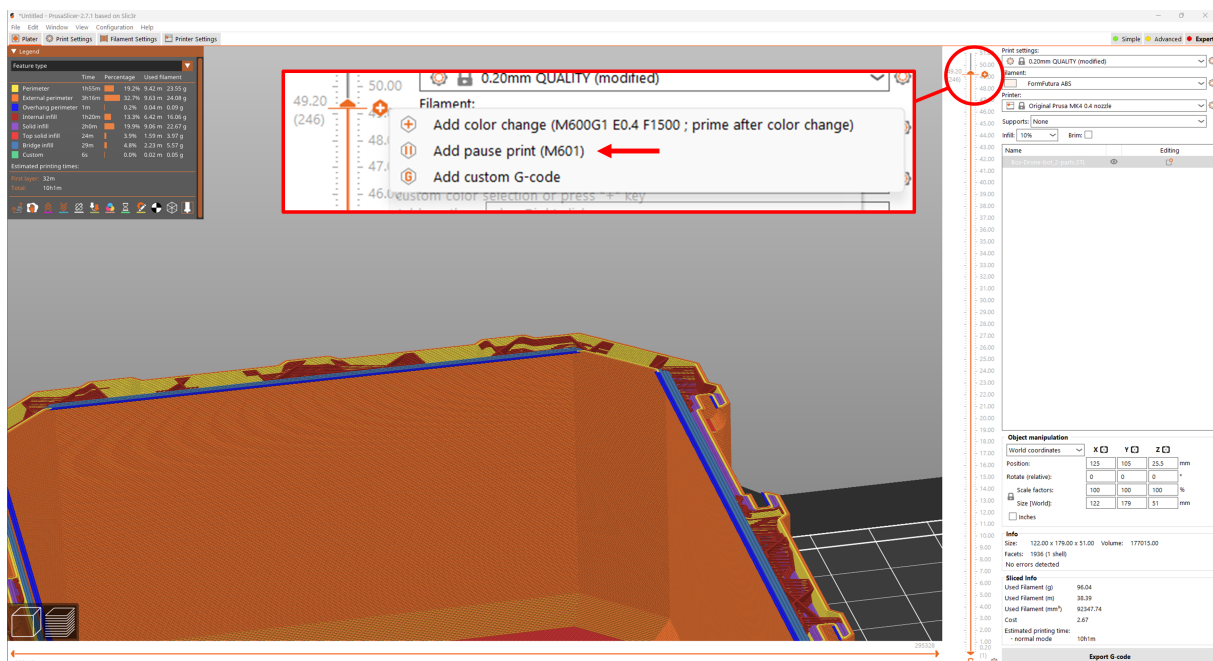
Slicing:

As mentioned above, in this option the boxes consist of two parts. First, print the parts INLAY-XXX-bot and INLAY-XXX-top. Later the inlay parts are going to get embedded when printing the parts box-XXX-bot_2-PARTS and box-XXX-top_2-PARTS.



Using the Prusa Slicer, the process is pretty simple:

1. Slice the box-XXX-bot_2-PARTS.stl or box-XXX-top_2-PARTS.stl as usual.
2. Go to the slicer preview.
3. Search for the layer, where the overhangs start getting printed. That's the height at which the inlay parts are embedded.
4. Right-click on the + icon next to the layer height slider and choose Add pause print (M601) (see picture below)
5. Re-Slice the part and export the .gcode file. You are now ready to print.



Embedding the part:

Start with printing the parts INLAY-XXX-bot and INLAY-XXX-top. Then you can start with the box-XXX-bot_2-PARTS and box-XXX-top_2-PARTS. You can print them like every other part. At the pre-defined layer height the printer stops printing. Using the example above this would happen at **the beginning** of layer 246 (height 49.2mm). Now it's time to insert the Inlay

parts. There is probably a good amount of play between the two parts. I recommend using some tape around the Inlay parts to get a tighter fit. Before resuming the print, check if both top surfaces are more or less flush with each other. In my experience it is more forgiving than expected.

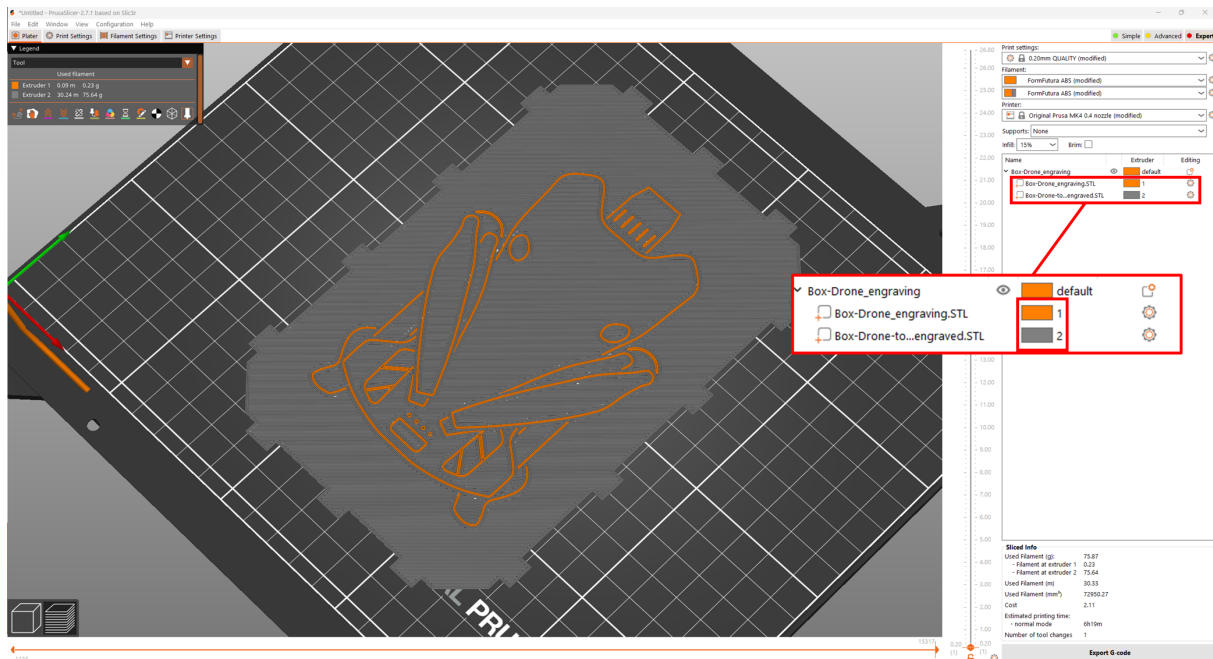
Print the last few remaining layers - and you are done!

Printing the engraved version:

Slicing:

Im going to describe the process using the PrusaSlicer. If you are using different software: Good luck - you are on your own.

1. Use following settings: (Note: Expert mode is required)
 1. Printer settings - General - Capabilities - **Extruders: 2**
 2. Printer settings - General - Capabilities - **Single Extruder Multi Material: On**
 3. Printer settings - Custom G-code - **Tool change G-code: M600**
 4. Printer settings - Extruder 1 (+ Extruder 2) - Preview - **Set extruder color** (Note: I recommend setting extruder 1 to the color of the engraving)
 5. Print settings - Multiple Extruders - Wipe tower - **Enable: Off**
2. Load the models box-XXX-top_2-PARTS_**ENGRAVED** and box-XXX_**ENGRAVING**. (Note: If slicer detects Multi part object it does the next step for you. Just confirm the pop-up)
3. Check the alignment of the parts (and correct if needed). The engraving should fit perfectly into the groves of the Box part.
4. Assign the colors to the objects (see picture below).
5. Add pause print as mentioned above (2-part version).
6. Slice the model. You are now ready to print.



Printing:

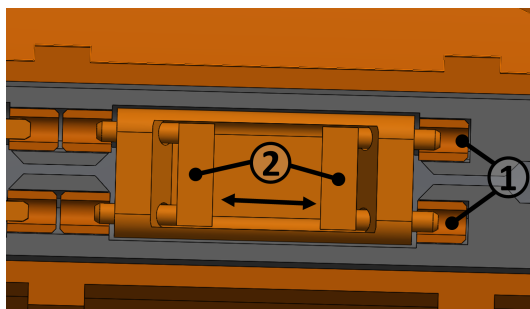
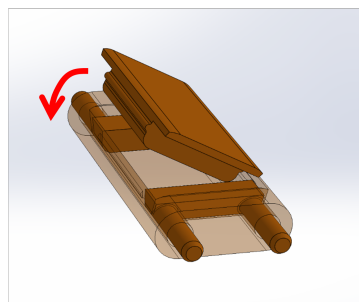
Load the Filament for the engraving. The Printer starts printing the ENGRAVING part of the gcode. When finished, the filament gets ejected. Load the new filament and resume print. Again, the printer should start with the first layer - just without homing the axes.

The rest works like described above with the embedded part.

Assembly

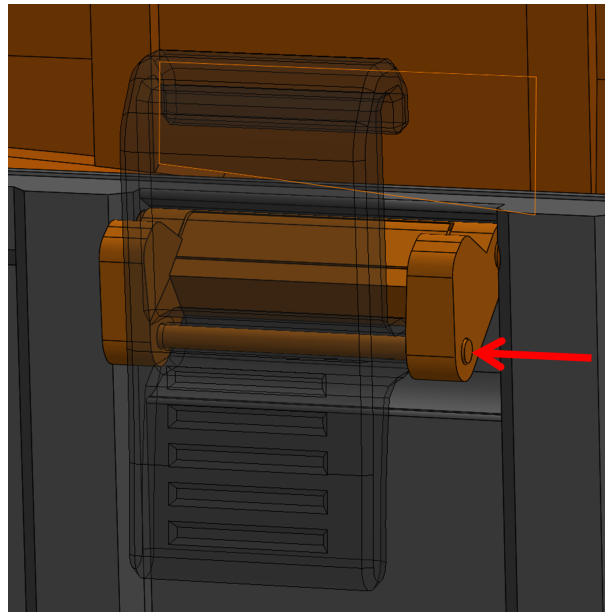
All parts printed? Now it's time for assembly.

- Connect the two parts of the box: First, insert the bushings [1] into the holes of box-top and box-bot. Then insert the pins [2] into the main body of the hinge and slid them out and into the bushings [1]. Finally, complete the hinges by clipping the lid onto the main body. (Note: See pictures below)



- Using the same mechanic, connect the levers to the front of the box-bot parts.

- Lever and clip are connected with a piece of 1.75mm filament. Insert it from the right. (The hole on left is slightly smaller for a better fit)



- Optional: Add a felt inlay in the remote-top part.
- And... You're finished!

Model files



Preview (not for printing)

1 file



preview.stl

☐ Preview - Not for printing



Shared objects

4 files



clip.stl



lever.stl



hinge.stl



bushing.stl



Box Drone Single

2 files



box-drone-top_single.stl

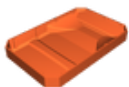


box-drone-top_single.stl



Box Drone 2-Parts

6 files



inlay-drone-top.stl



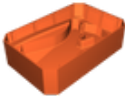
box-drone-top_2-parts_blank.stl



box-drone-top_2-parts_engraved.stl



box-drone_engraving.stl



inlay-drone-bot.stl

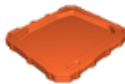


box-drone-bot_2-parts.stl



Box Remote single

2 files



box-remote-top_single.stl



box-remote-bot_single.stl



Box Remote 2-Parts

6 files



inlay-remote-top.stl



box-remote-top_2-parts_blank.stl



box-remote-top_2-parts_engraved.stl



box-remote_engraving.stl



inlay-remote-bot.stl



box-remote-bot_2-parts.stl



Box Battery Single

2 files



box-batt-top_single.stl

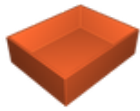


box-batt-bot_single.stl



Box Battery 2-Parts

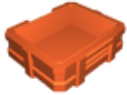
6 files



inlay-batt-top.stl



box-batt-top_2-parts_blank.stl



box-batt-top_2-parts_engraved.stl



box-batt_engraving.stl



inlay-batt-bot.stl



box-batt-bot_2-parts.stl



STEP

3 files



box-batt-assy.step



box-remote-assy.step



box-drone-assy.step

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