



DJI Controller Bicycle Mount V3



Open Hardware Designs

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Summary

It's a mount for DJI controller to be mounted on a bicycle handlebar. Parametric design in FreeCAD.



6.25 hrs



1 pcs



0.20 mm



0.40 mm



PLA



60 g



Prusa
MK3/S/S+

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Tags: [holder](#) [drone](#) [mount](#) [controller](#) [dji](#) [bicycle](#) [bike](#)
[remotecontrolled](#) [djimavicair2](#)

The latest design can be found at [Gitlab](#).

What is it?

45 Degree adjustable DJI controller mount for the bicycle handlebar. Can be printed without any supports.

Why build it? Mounting options to buy were too expensive! And so far experience with DJI attachments were that quality is quite poor. Some designs where even 3D printed. Here are some examples [\\$40](#), [\\$50](#) - 3D printed

Assembly

FreeCAD files have a spreadsheet with parametric values. Most important is to check the handlebar diameter and adjust value in the spreadsheet.

Handle bar		
diameter	33.000	
clip_thickness	4.000	
rubber	0.500	

Steps

- Insert M4 nuts into controller holder and clip pieces.
- Insert bolts into the knobs.
- (optional) I recommend using glue on bolt heads and nuts so they don't freespun if overtightened.
- Add something to prevent grip slippage. 3D printed plastic pieces can be very smooth and no matter how tight it is it can still slip. It is recommended to add a piece of rubber, electric tape or some sort of gasket to prevent clip slipping around the handlebar.
- Install the clip parts around the handle bar.
- Install controller holder and select the angle position.



V3

Effort

CAD design (updates) - 30min

3D printing - 6h

Cost

Filament - \$1.5

Fasteners - \$0.5

Total - \$2

Change log

- Reduced tolerances for angle adjustments to reduce movement
- Added chamfered edge for the nut so it can be printed without support
- Improved knob design so it's easier to grip
- The clamp part is round instead of just rounded corners
- Nuts on the bottom clamp part are rotated so it's edge is further from the wall

BOM

1x Controller holder

1x HandleBar grip top

1x HandleBar grip bottom

3x Knobs (there are two different sizes but for the same M4 nut)

2x M4x20

1x M4x30

V2

Effort

CAD design (updates) -

3D printing - 6h

Cost Filament - \$1.5 Fasteners - \$0.5 Total - \$2

V2 Change Log

- Tighter fit for the Controller
- Wider grip around the handle bar
- Split the grip into two pieces so it's usable for not so flexible materials

BOM

1x Controller holder 1x HandleBar grip top 1x HandleBar grip bottom 3x Knobs (there are two different sizes but for the same M4 nut) 2x M4x20 1x M4x30

V1

Requirements

Hold Controller in a stable way Have adjustable angle Print without supports Use a single bolt to tighten around the handlebar Try new knob designs

Issues

Controller holder had 2-3 mm slack and can move. Thin clip can split if nut is tightened too much. Small width of the clip doesn't grip enough and it can still spin.

This remix is based on



DJI Controller Bicycle Mount

by Open Hardware Designs

Model files



controller_mount_v3-handlebarbottom_clip-meshed.3mf



controller_mount_v3-handlebarbottom_clip-meshed.stl



controller_mount_v3-knob_20mm.stl



controller_mount_v3-knob_30mm.stl



controller_mount_v3-controller_mount-meshed.stl



controller_mount_v3-handlebartop_clip-meshed.stl

Print files



controller_mount_v3-handlebarbottom_clip-meshed.gcode

🌀 PLA 🌀 0.40 mm ≡ 0.20 mm ⌚ 6.25 hrs ⚖️ 60 g 🖨️ Prusa MK3/S/S+

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