

## [V2] 2 in 1 Bicycle Bottle Holder & AirTag case

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### Summary

This is a 2 in 1 Bottle holder and AirTag case, that attaches to the bottom of the holder by screwing it on.

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Tags: [bicycle](#) [bicycleholder](#) [bicyclemount](#) [bicycletool](#)  
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### [Update 15/08/22]

I uploaded the V2 file, that in theory should be stronger due to the bigger fillets and 1mm thicker walls. The design also sits lower on the bike frame itself (15mm lower). I will keep the V1 file also available. In testing I have gained some knowledge that bottles up to 85mm in diameter (haven't tested more) will fit in the holder, but while on the frame they don't fit, because the height on them is just too much and it would take a lot of rotation to get it in there, which would break the holder. **Stick to the 74-80mm range if possible.** For the next version I will try to make it parametric so you can make a holder, that suits you best.

## [V1]

This is my own design of a bicycle bottle holder, that also houses an AirTag in the bottom compartment by screwing it on. The design requires some support and clean-up in the bottom screw threads, but it should be less than a few minutes.

I came up with the design right after my father made a bottle holder for my bike, but I thought it needed some adjustment so I could fit more bottles than just 1 fixed bottle.

I used custom supports in the threads and it worked very well, but since I don't use a printer with Marlin, I wouldn't upload the .gcode file. The files are already oriented in the right way, just need to slice and upload to printer.

The overhangs shouldn't need any support, though they do need quite a bit of cooling. I myself forgot to bump the cooling up the first few millimeters and it is noticeable, but after I bumped it up, all the artifacts were gone. The models took together around 3 hours to print and the end result is amazing. The bottom case screw may need some playing to get it to run smoothly. It took me around 2 minutes of playing and it is running smoothly since then.

The screws used with the design came with a different bottle holder, but they are M5x16, there are little screw head seatings made for the screws and they sit flush with the wall of the design.

The design supports bottles with **74-80mm diameter**, you can use a smaller bottle, but it will most likely wobble in the holder and bigger bottles I haven't tested yet. It is a small, but durable bottle holder. I will update the model soon to make it more adjustable on the frame, since right now it sits very high up on my bike.

Recommended print settings :

Material : PETG

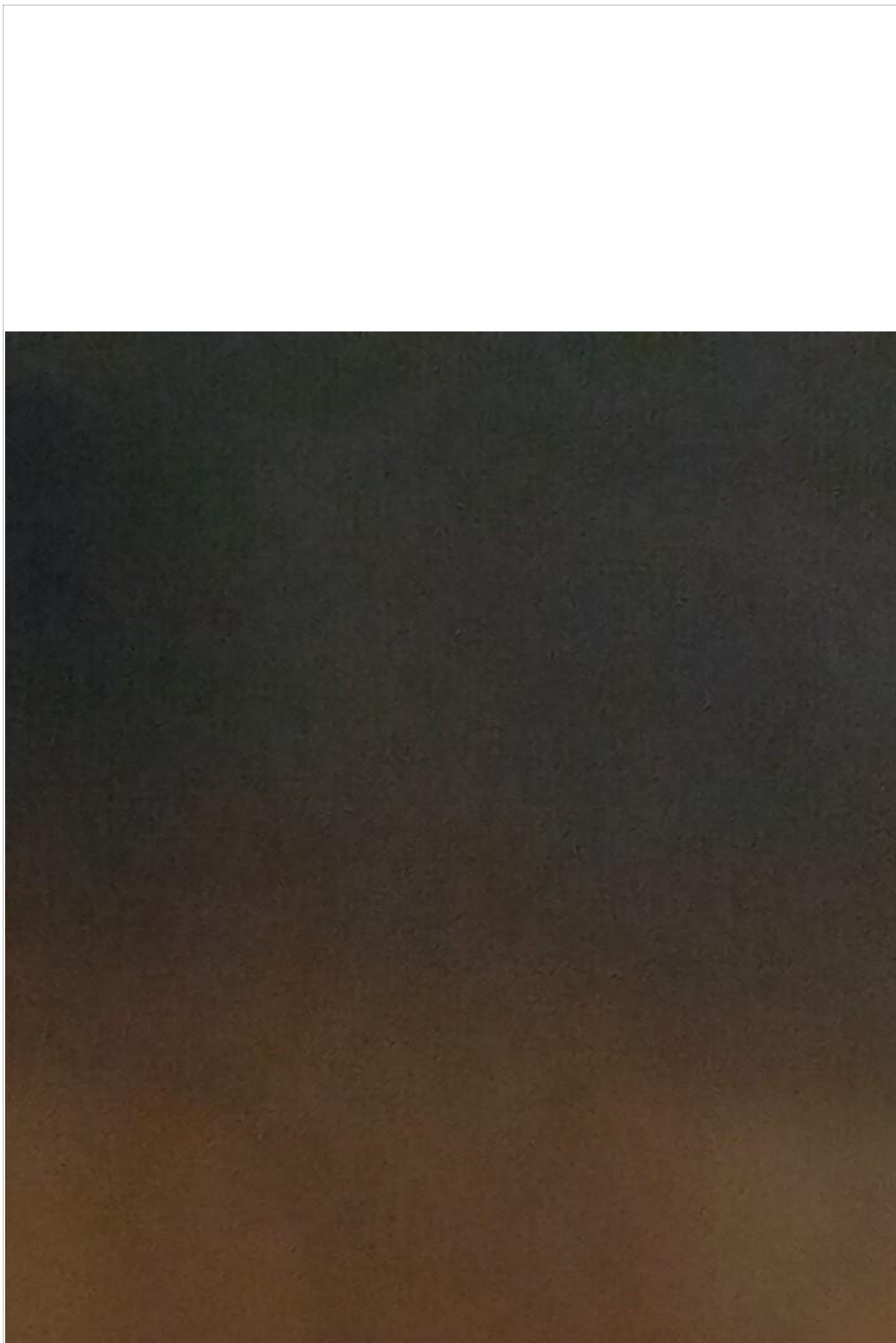
Layer Height : 0.2mm

Walls : 3+ (1.2mm+)

4 Top/Bottom layers

Infill : > 25%

Cooling : Alot (especially overhangs), my cooling fan was on 70%+ (up to 85%)



# Model files



**bottleholder\_v2.stl**



**airtagcap.stl**



**bottleholder\_v1.stl**

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