

## Improved Single-Piece Tape Dispenser



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### Summary

Improved Single-Piece Tape Dispenser for 20mm wide tapes like the classic tesafilm clear tape.



2.73 hrs



1 pcs



0.15 mm



0.40 mm



PLA



22 g



Prusa  
MK3/S/S+

[Household](#) > [Office](#)

Tags: [tapedispenser](#) [tesafilm](#) [tesa](#) [tapeholder](#) [organiser](#)  
[tape](#)

This tape dispenser is designed for a maximum width of tape rolls of 20mm. The inner diameter of the roll should ideally be about 26mm to keep the roll from coming off on its own and to still allow for easy installation of the tape roll without breaking the dispenser. The outer diameter of the tape rolls can go up to about 55mm.

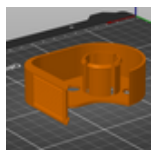
This is the improved version of my previously released single-piece tape dispenser. The improved version prints about 35 minutes faster than the original, which is mostly achieved by removing certain sections that

previously required support structures. Even tho many support structures were removed during my optimization the tear-off part unfortunately still requires supports to print as intended. The teeth of the tear-off part of the model also still rely on a thin layer height to achieve the sharpness required to cut plastic tape like the classic tesafilm. The 0.15 mm layer height that is used in the provided print files seems to be the optimal compromise between the print time and the sharpness of the teeth. If you really want it to get as sharp as possible tho, you might still want to take a modeling knife to sharpen the teeth even further.

The attachment between the tape rolls and the dispenser is designed to be a compliant mechanism, so the attachment prongs are designed to flex to allow for a new roll to be installed into the dispenser. I have now tested the mechanism for about a year with the previous design and so far I haven't had any issues with the prongs breaking while installing or removing a tape roll. The holes that are added to the back of the dispenser are used to push a spend tape roll out of the dispenser using a pen or similar. However, this is only a backup solution for the rare case that you can't remove a tape roll by simply flexing the attachment prongs. I, so far, haven't had to use this backup solution, but I thought it might be good to have it in case you need it.

I hope you enjoy this model, if you have any suggestions to help and improve my design please let me know.

## This remix is based on



### Single Piece Tape Dispenser

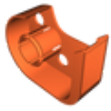
by s17s05

## Model files



improved-single-piece-tape-dispenser.3mf

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improved-single-piece-tape-dispenser.stl

## Print files



improved-single-piece-tape-dispenser\_015mm\_pla\_mk3s... .gcode

PLA 0.40 mm 0.15 mm 2.73 hrs 22 g Prusa MK3/S/S+

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