

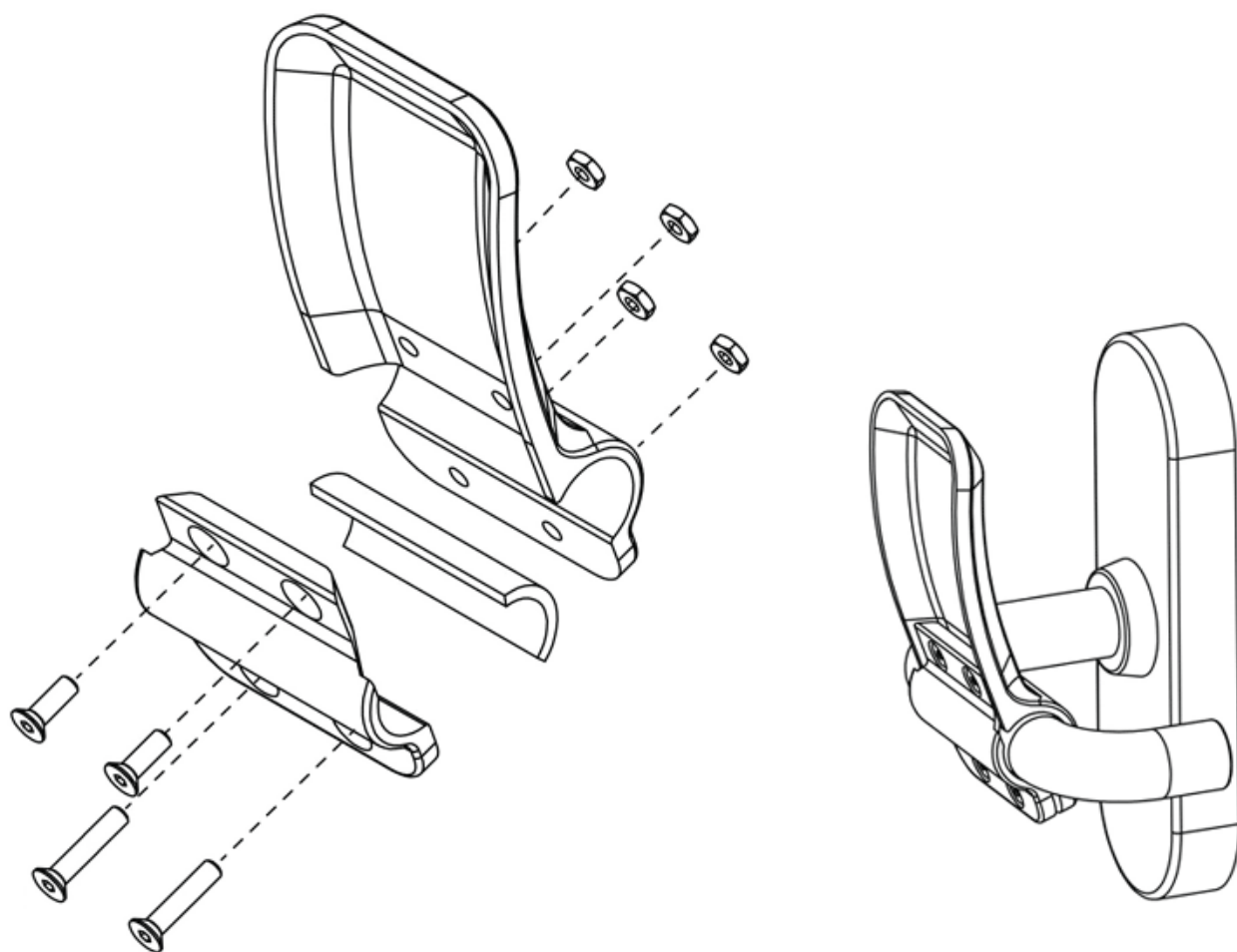
## TECHNICAL INFORMATION

# Hands-Free Door Openers

On this page, discover our available models, printing and mounting instructions, and informational sticker for our 3D-printed hands-free door opener to avoid passing on COVID-19.

Let's work together to stop the spread!

**Learn more about why we started this project >**



# Our models

The design files are free to download and are available in STEP, STL, and X\_T formats. They're applicable for Multi Jet Fusion (MJF), Laser Sintering (SLS), or Fused Deposition Modeling (FDM) technologies.

By downloading, you are free to share and adapt the design as you would like for the purpose of 3D printing it yourself in any of the aforementioned technologies. The only requirement is that you attribute Materialise, by not removing the reference to Materialise on the design. Should you wish to make other modifications, or in case you want to manufacture the designs with other than the 3D printing technologies mentioned above, we ask that you reach out to Materialise at [projects@materialise.be](mailto:projects@materialise.be) for discussing the appropriate license grant.

**Customize any design**





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## Cylindrical, Narrow

- › Optimal for doors of an average weight, like household doors
- › Suitable for both curved and non-curved handles
- › Fits cylindrical handles between 16 and 22 mm
- › Requires one M4 x 12 screw and one M4 x 16 screw

### DOWNLOADS

Doorhandle-Cylindrical-Narrow-A.STL

Doorhandle-Cylindrical-Narrow-B.STL

Doorhandle-Cylindrical-Narrow.STEP

Doorhandle-Cylindrical-Narrow.x\_t

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## Cylindrical, Wide

- › Optimal for doors of an above-average weight, including fireproof doors with hydraulic pumps
- › Suitable for non-curved handles
- › Fits cylindrical handles between 16 and 22 mm
- › Requires two M4 x 12 screws and two M4 x 16 screws

## DOWNLOADS

Doorhandle-Cylindrical-Wide-A.STL

Doorhandle-Cylindrical-Wide-B.STL

Doorhandle-Cylindrical-Wide.STEP

Doorhandle-Cylindrical-Wide.x\_t

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Rectangular, Narrow, Horizontal

- › Optimal for doors of an average weight, for example household doors
- › Suitable for both curved and non-curved handles
- › Fits rectangular, horizontal handles with a height between 11 mm to 20 mm and a depth of at most 25 mm
- › Requires one M4 x 12 screw and one M4 x 16 screw

## DOWNLOADS

Doorhandle-Rectangular-Narrow-Horizontal-A.STL

Doorhandle-Rectangular-Narrow-Horizontal-B.STL

Doorhandle-Rectangular-Narrow-Horizontal.STEP

Doorhandle-Rectangular-Narrow-Horizontal.x\_t

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## Rectangular, Wide, Horizontal

- › Optimal for doors of an above-average weight, including fireproof doors with hydraulic pumps
- › Suitable for non-curved handles
- › Fits rectangular, horizontal handles with a height between 11 mm to 20 mm and a depth of at most 25 mm
- › Requires two M4 x 12 screws and two M4 x 16 screws

### DOWNLOADS

Doorhandle-Rectangular-Wide-Horizontal-A.STL

Doorhandle-Rectangular-Wide-Horizontal-B.STL

Doorhandle-Rectangular-Wide-Horizontal.STEP

Doorhandle-Rectangular-Wide-Horizontal.x\_t

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## Rectangular, Narrow, Vertical

- › Optimal for doors of an average weight, for example household doors
- › Suitable for both curved and non-curved handles
- › Fits rectangular, vertical handles with a height of 31 mm and a depth between 4 mm and 11 mm
- › Requires one M4 x 12 screw and one M4 x 16 screw

### DOWNLOADS

Doorhandle-Rectangular-Narrow-Vertical-A.STL

Doorhandle-Rectangular-Narrow-Vertical-B.STL

Doorhandle-Rectangular-Narrow-Vertical.STEP

Doorhandle-Rectangular-Narrow-Vertical.x\_t

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## Rectangular, Wide, Vertical

- › Optimal for doors of an above-average weight, including fireproof doors with hydraulic pumps
- › Suitable for non-curved handles
- › Fits rectangular, vertical handles with a height of 31 mm and a depth between 4 mm and 11 mm
- › Requires two M4 x 12 screws and two M4 x 16 screws

## DOWNLOADS

Doorhandle-Rectangular-Wide-Vertical-A.STL

Doorhandle-Rectangular-Wide-Vertical-B.STL

Doorhandle-Rectangular-Wide-Vertical.STEP

Doorhandle-Rectangular-Wide-Vertical.x\_t

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# Circular, Stationary, Small

- › Optimal for doors of a lighter or average weight, for example household doors
- › Suitable for circular door handles that don't twist
- › Fits circular handles with a diameter between 47 mm and 50 mm
- › Requires two M4 x 16 screws and two M4 nuts

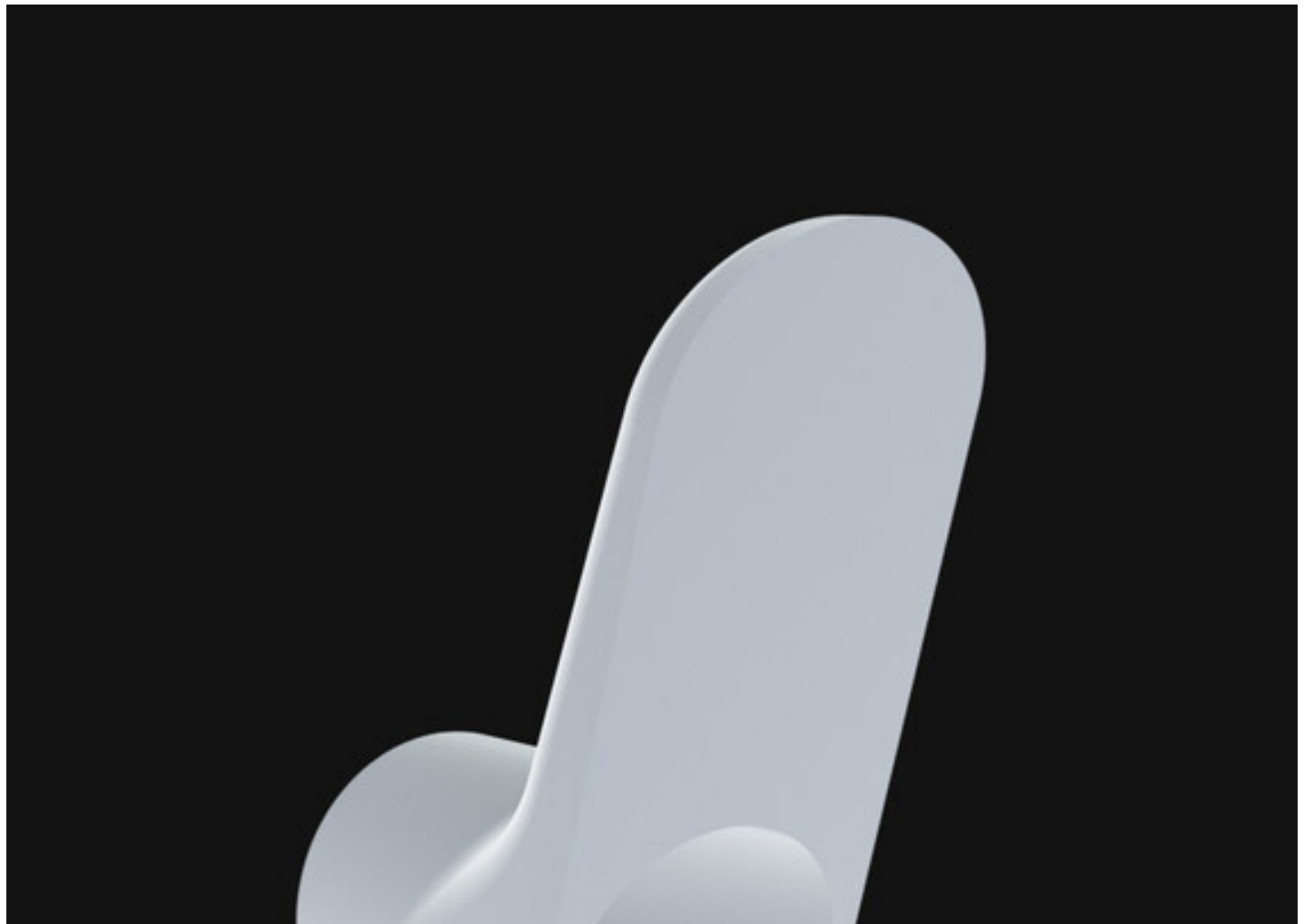
## DOWNLOADS

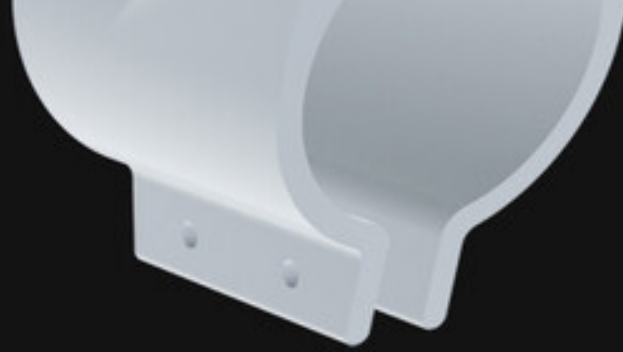
Doorhandle-Circular-Stationary-Small.STL

Doorhandle-Circular-Stationary-Small.STEP

Doorhandle-Circular-Stationary-Small.x\_t

[Order on i.materialise](#)





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## Circular, Stationary, Large

- › Optimal for doors of a lighter or average weight, for example household doors
- › Suitable for circular door handles that don't twist
- › Fits circular handles with a diameter between 51 mm and 54 mm
- › Requires two M4 x 16 screws and two M4 nuts

### DOWNLOADS

Doorhandle-Circular-Stationary-Large.STL

Doorhandle-Circular-Stationary-Large.STEP

Doorhandle-Circular-Stationary-Large.x\_t

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## Bar, Vertical, Medium

- › Optimal for doors of an above-average weight, including fireproof doors with hydraulic pumps
- › Fits stationary bar handles between 19 and 35 mm
- › Requires two M4 x 30 screws

### DOWNLOADS

Doorhandle-Bar-Vertical-Medium-A.STL

Doorhandle-Bar-Vertical-Medium-B.STL

Doorhandle-Bar-Vertical-Medium.STEP

Doorhandle-Bar-Vertical-Medium.x\_t

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## Bar, Vertical, Large

- › Optimal for doors of an above-average weight, including fireproof doors with hydraulic pumps
- › Fits stationary bar handles between 36 and 50 mm
- › Requires two M4 x 40 screws

## DOWNLOADS

Doorhandle-Bar-Vertical-Large-A.STL

Doorhandle-Bar-Vertical-Large-B.STL

Doorhandle-Bar-Vertical-Large.STEP

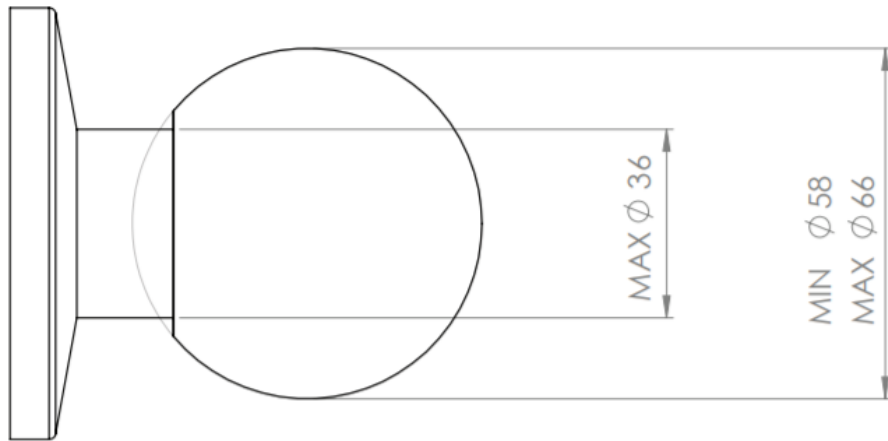
Doorhandle-Bar-Vertical-Large.x\_t

**Order on i.materialise**



# Spherical, Moving, Large

- › Optimal for doors of a lighter or average weight, for example household doors
- › Suitable for spherical door handles that twist
- › Fits spherical handles with a diameter between 58 mm and 66 mm and shaft with a maximum diameter of 36 mm
- › Requires four M4 screws



DOORKNOB

## DOWNLOADS

Doorhandle-Spherical-Moving-Large-B.stl

Doorhandle-Spherical-Moving-Large-Left&Right.STEP

Doorhandle-Spherical-Moving-Large-Left&Right.x\_t

Doorhandle-Spherical-Moving-Large-LEFT.stl

Doorhandle-Spherical-Moving-Large-RIGHT.stl





## Spherical, Moving, Small

- › Optimal for doors of a lighter or average weight, for example household doors
- › Suitable for spherical door handles that twist
- › Fits spherical handles with a diameter between 50 mm and 58 mm and shaft with a maximum diameter of 36 mm
- › Requires four M4 screws





DOORKNOB

## DOWNLOADS

[Doorhandle-Spherical-Moving-Small-B.stl](#)

[Doorhandle-Spherical-Moving-Small-Left&Right.STEP](#)

[Doorhandle-Spherical-Moving-Small-Left&Right.x\\_t](#)

[Doorhandle-Spherical-Moving-Small-LEFT.stl](#)

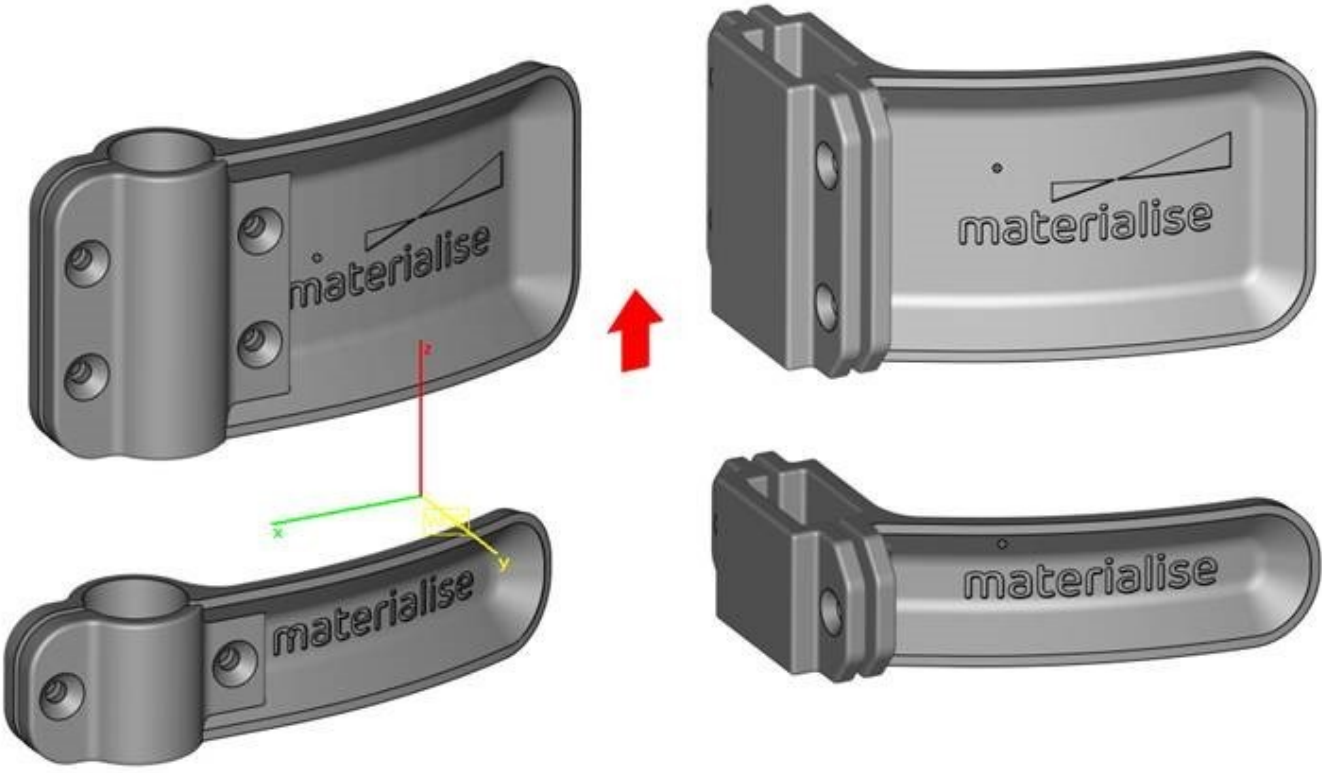
[Doorhandle-Spherical-Moving-Small-RIGHT.stl](#)

## Instructions



HOME PRINTING

To maximize part strength and minimize the support needed, we recommend printing the parts on their side. In our test prints we found that printing according to the orientation shown in the following image is the most effective and efficient way.



If you print on FDM machine, please use our guidelines here

[FDM printing guidelines](#)

**MOUNTING**

To prevent the opener from rotating, we suggest placing an elastic band between the handle and plastic. Please note that small rubber sheets are included in the i.materialise orders.

Tighten the screws enough to ensure that the opener stays in place, and adjust the longer screws to fit your door handles.

For more tips and tricks, please watch our video above.

## Let’s make hands-free stick around

We also designed a sticker to be placed on doors with the openers. This sticker shows a basic illustration of how the device should be used along with the rationale that it is there to prevent people from spreading germs.

One sticker per handle will be sent out with all i.materialise orders, and the design file is available for download for those who are printing locally.

[Download free sticker design file >](#)

