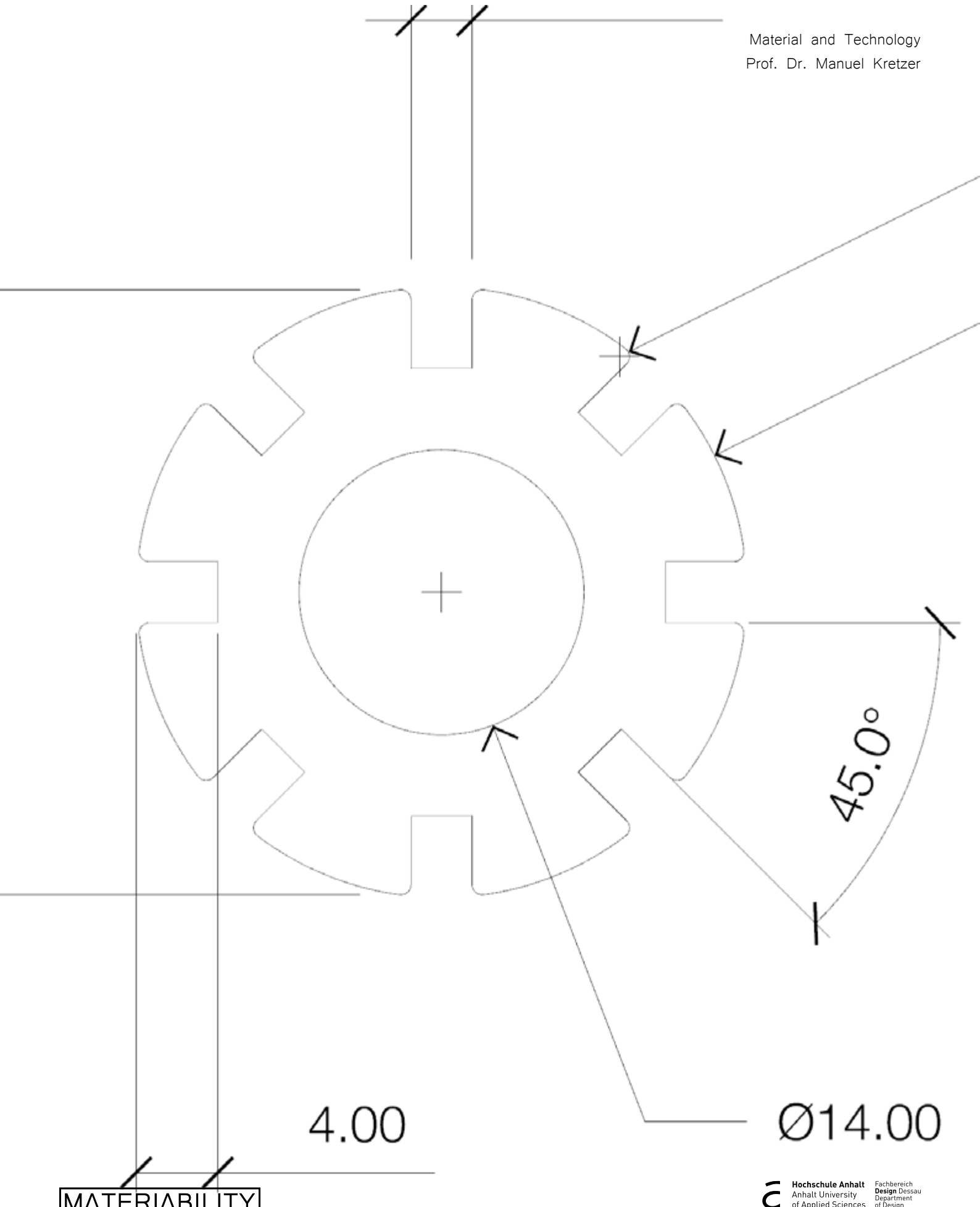


RHINO Intro:Drawings

Material and Technology
Prof. Dr. Manuel Kretzer



MATERIABILITY

What you are about to learn:

1. Adding Dimensions
2. Adding specific Dimensions
3. Dimension Settings
4. Exporting a PDF
5. MacOSX PDF Export

Further info and credits

Tutorial prepared by Karsten Schuhl

For more tutorials visit:

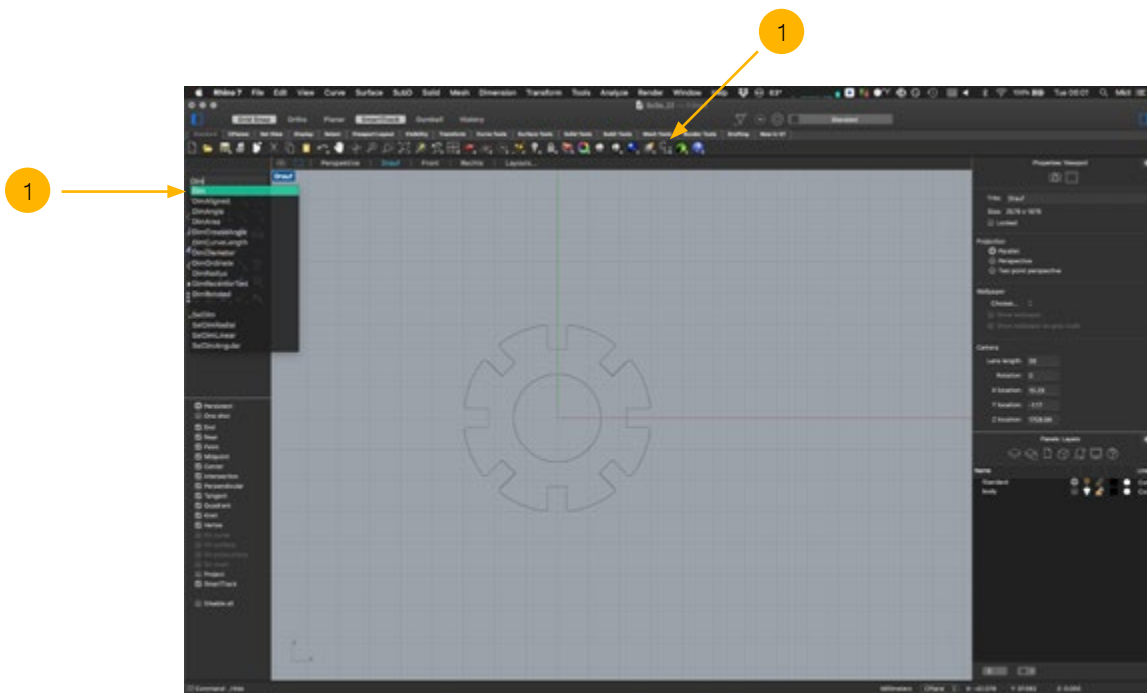
<https://medium.com/dpro/how-to-export-cad-drawings-from-rhino-to-pdf-701352c0bd6c>

<https://www.rhino3d.com/learn/>

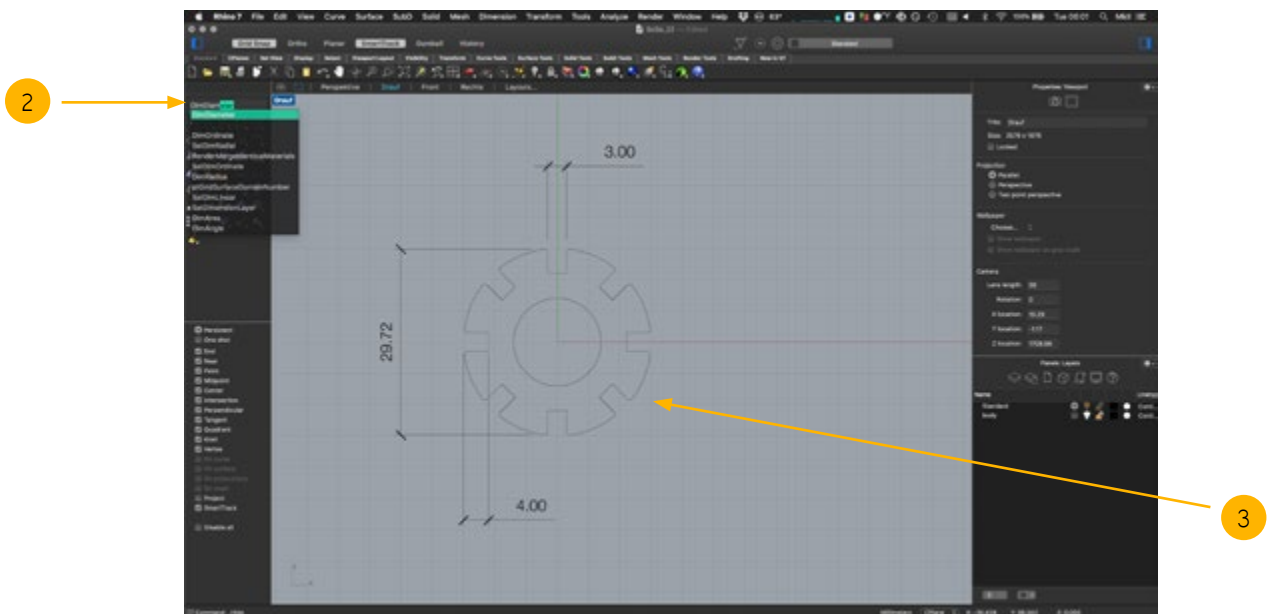
<https://www.rhino3dhelp.com/>

Youtube is also a great source for Rhino tutorials.

1. Adding Dimensions

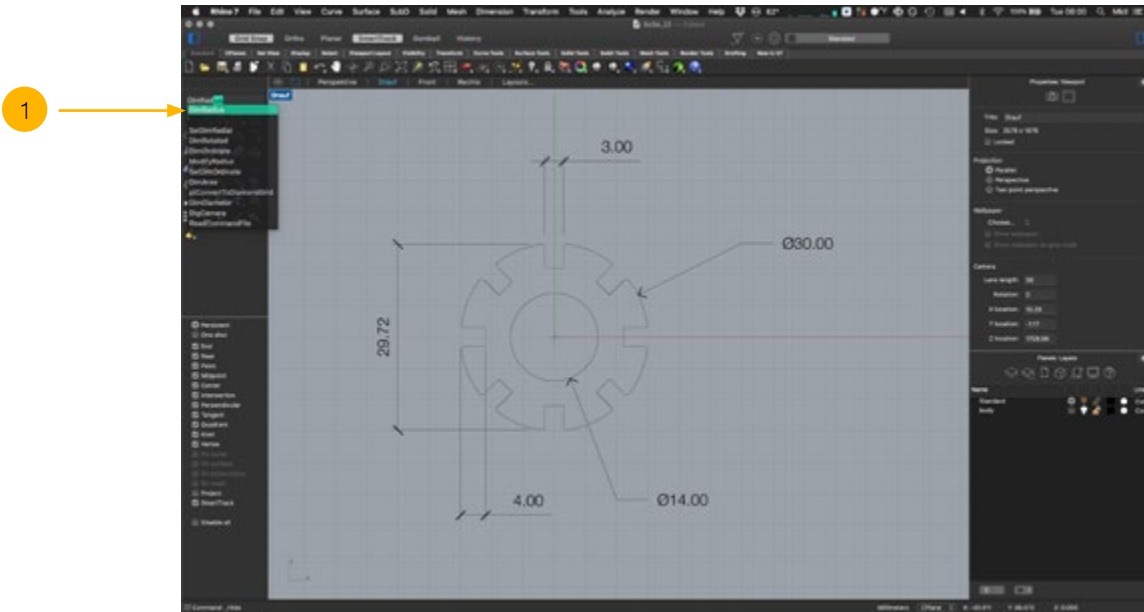


- 1 Linear Dimensions can be added via the “Dim” command or with the respective symbol in the upper toolbar. Linear Dimensions align either horizontally or vertically depending on where the final dimensions lines are placed.

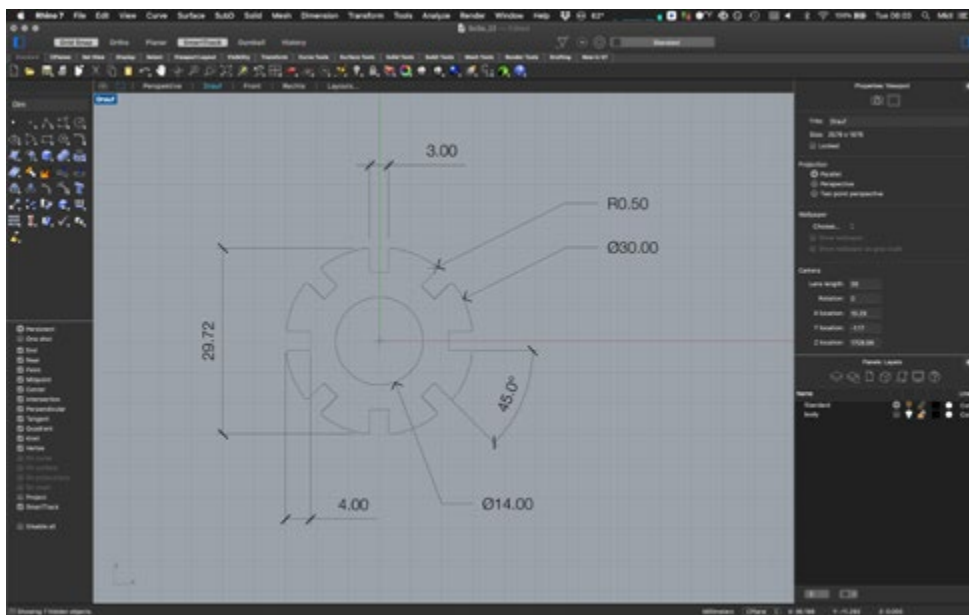


- 2 Dimensions for a diameter or a radius have their own commands (“DimDiameter” and “DimRadius”).
- 3 Objects and curves that are not colinear to any of the viewport axes (X, Y or Z) need an aligned dimensions. The command for this is called “DimAligned”.

2. Adding specific Dimensions



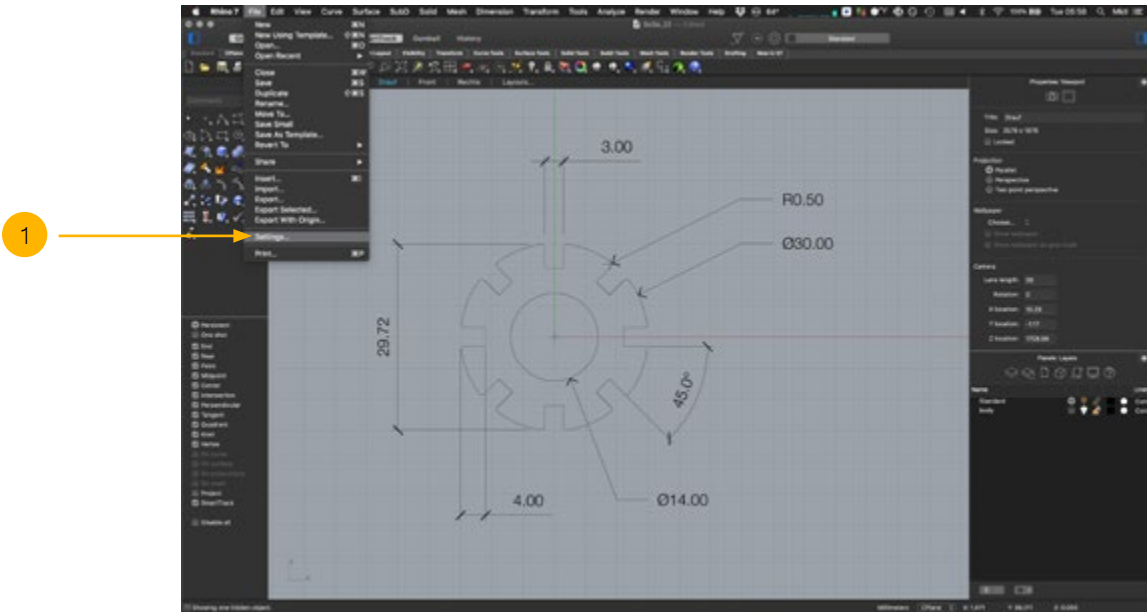
- 1 A radius will be described by a capital "R" followed by a number.



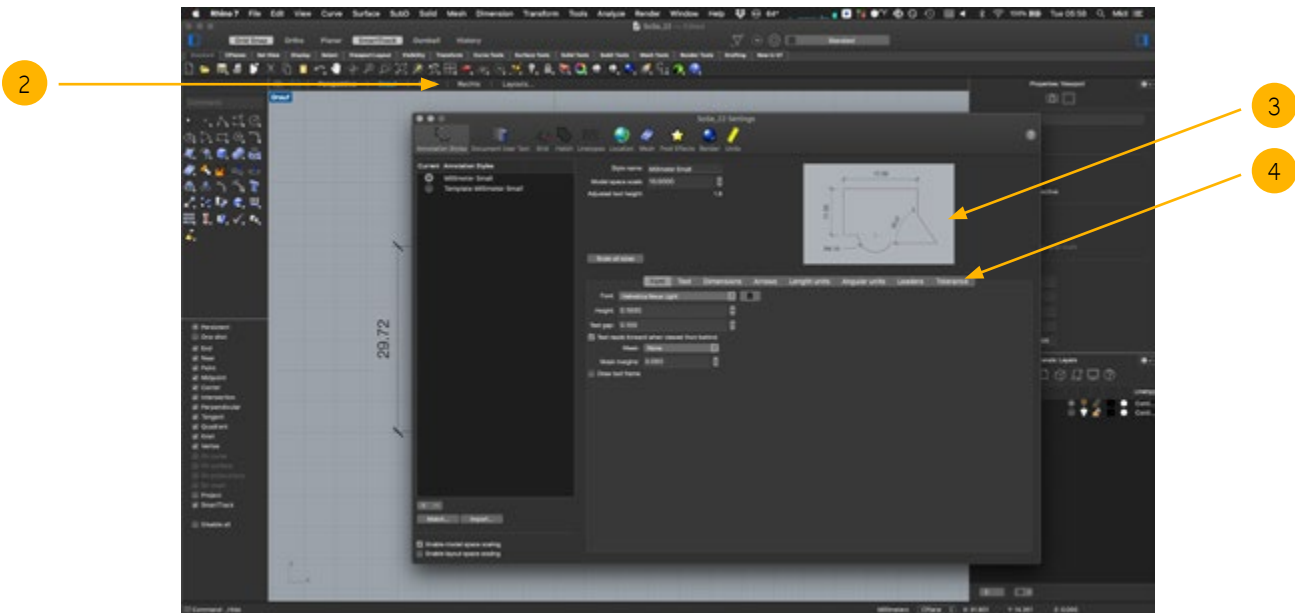
A fully defined drawing will display all necessary dimensions to explain its features. From this drawing we know the following info about our object:

- Outer diameter: 30mm
- Inner diameter: 14mm
- Cutout: width x depth – 3 x 4mm
- Eight cutouts in steps of 45.0°
- Radius of rounded corner: 0.5mm
- Distance from radius to radius: 29.72mm

3. Dimension Settings



1 To change the size and look of each dimension access the “File > Settings...” menu

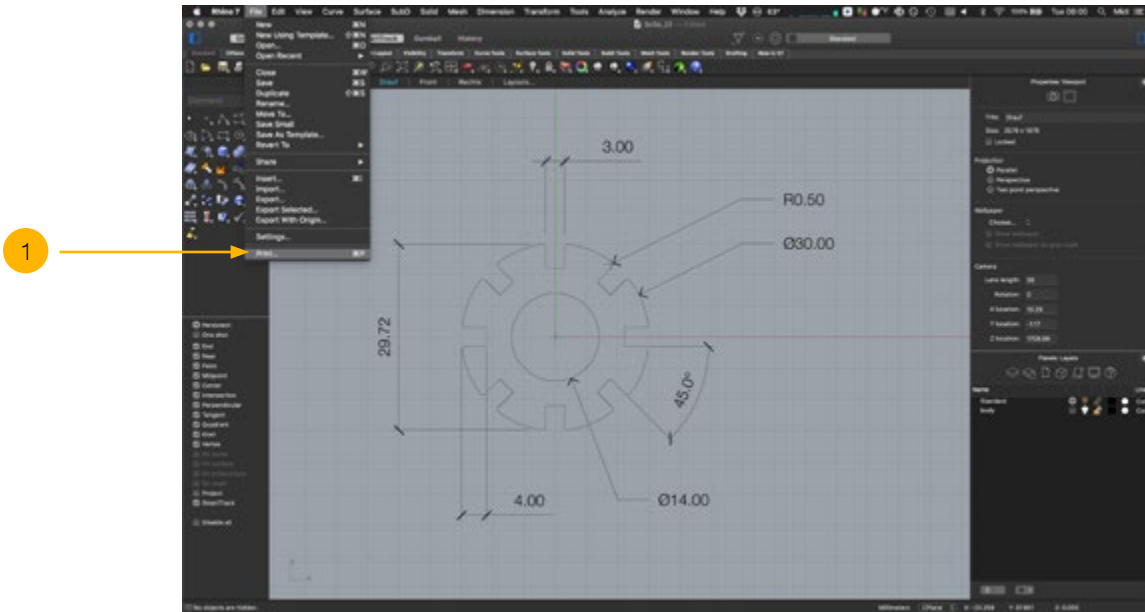


2 Dimensions are a part of the “Annotation Style” in Rhino. Which is the first rider in the “Settings...” menu.

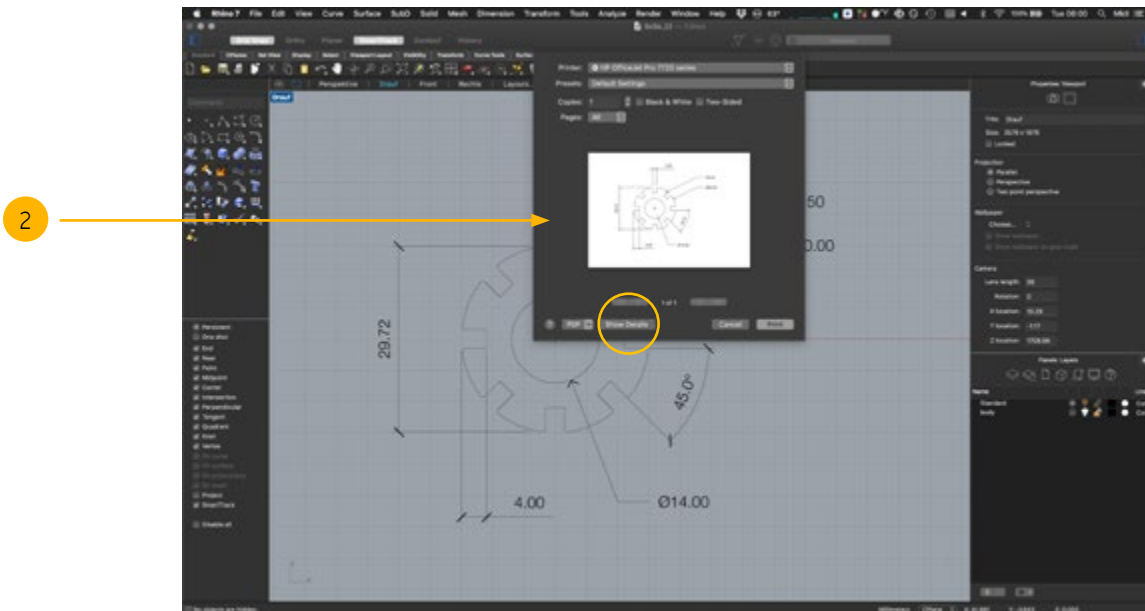
3 The preview window of sizes and styles for dimensions and annotations.

2 Options grouped in sub-tabs for i.e. font styling, size and look of dimensions or different arrow-heads for dimensions.

4. Exporting a PDF

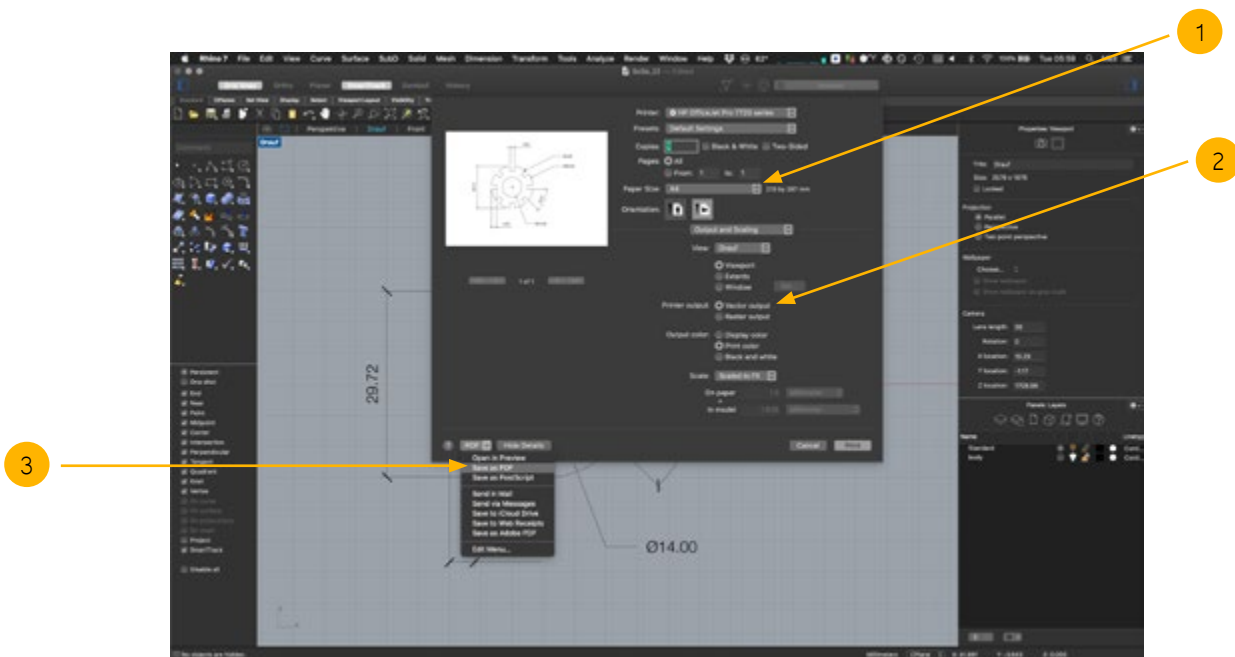


- 1 The drawing can be exported via the “File > Print” dialog.



- 2 The print dialog window.
In MacOSX: to access the detailed options for a file export click the “Show Details” button.

5. MacOSX PDF Export



- 1 Set the paper size to the desired output size. For Example Din A4
- 2 “Printer Output”: “vector” is recommended. Because “raster” images are made from pixels, which will easily result in bad resolution prints and can not be used as an exchange format for other softwares such as Adobe Illustrator.
- 3 In MacOSX a print can directly be saved as a PDF. For windows follow the steps of this [tutorial](#).

Final Drawing

