

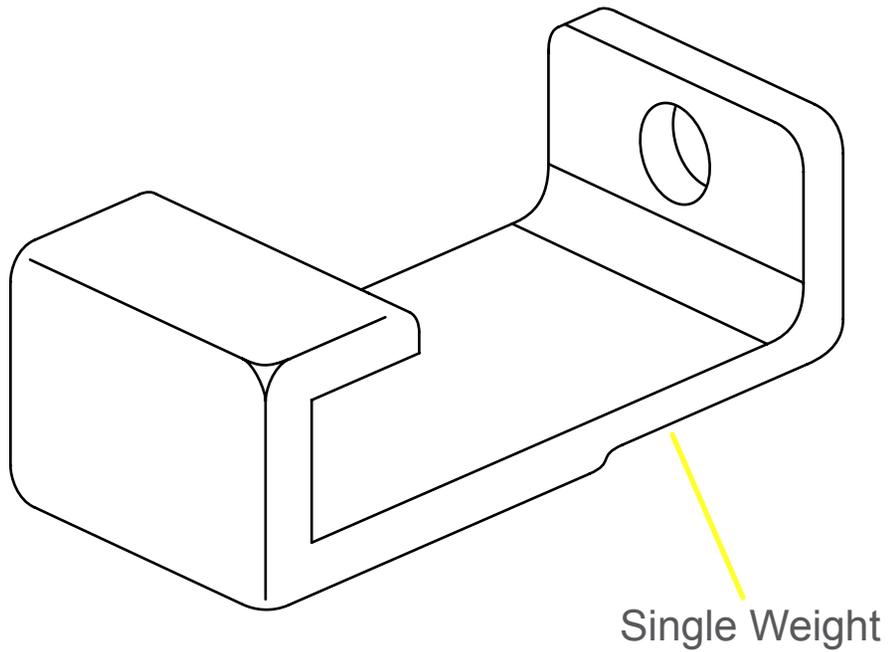
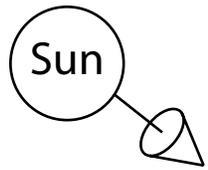
Five Lineweight Rendering



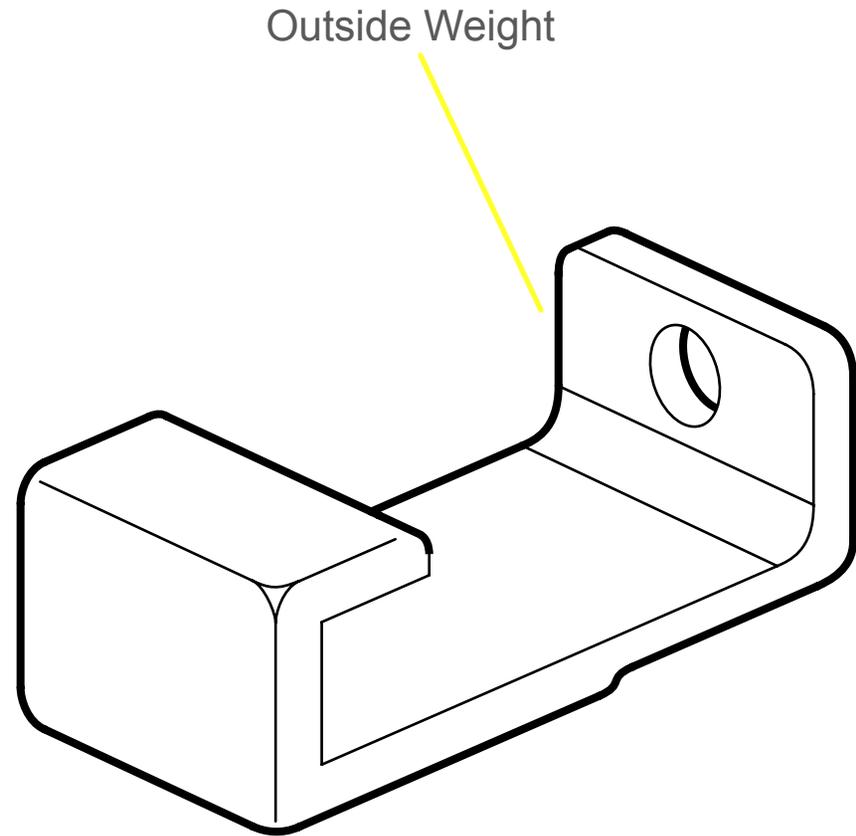
Large significant technical illustrations may require more than two line weights to accurately depict spatial relationships. When using five lineweight rendering, you must make a careful analysis of the function of each line on the object and an initial decision as to the position of the sun. The sun's position determines which exterior lines are the heaviest as well as the position of any highlights.

Value	Title	Function
.25	Interior Blend	Any line within the object that represents where a surface begins to curve.
1.0	Interior Sharp	Any line within the object that represents a perpendicular intersection.
2.5	Overhang	Any line within the object that represents the limit or extent of a feature.
3.0	Outside	Perimeter lines that make up the sides or the top of the object.
5.0	Backside	Perimeter lines that make up the back, the bottom, or a side away from the sun.

Five Lineweight Rendering

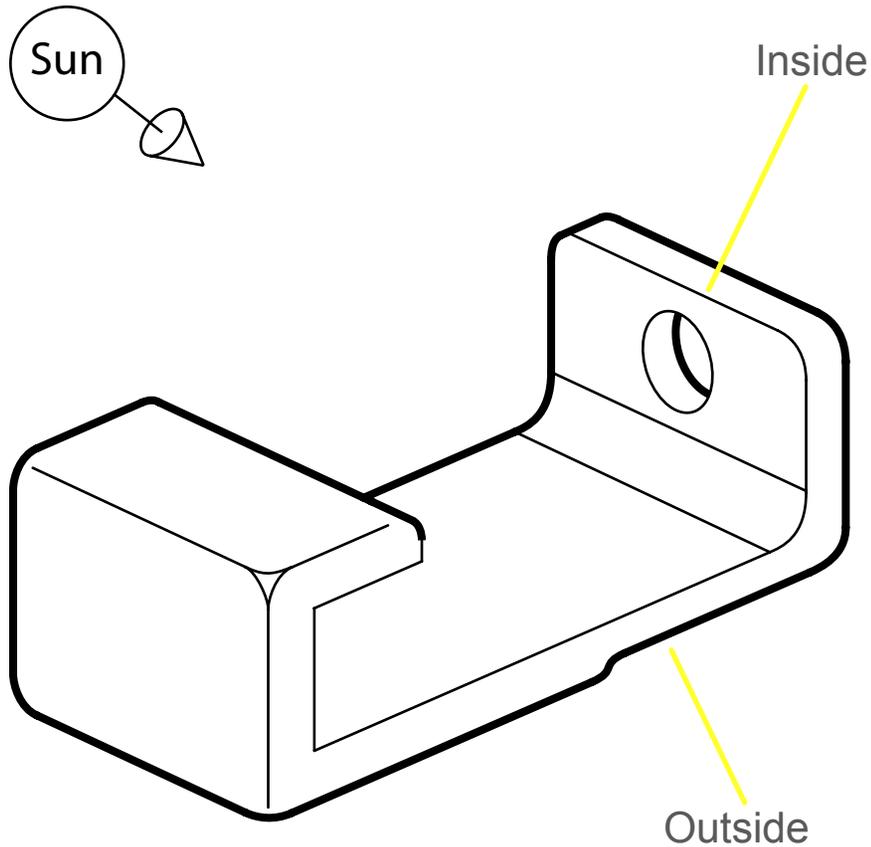


This figure shows a single lineweight rendering of a part and the position of the sun. We will apply each additional lineweight one at a time to illustrate their purposes.

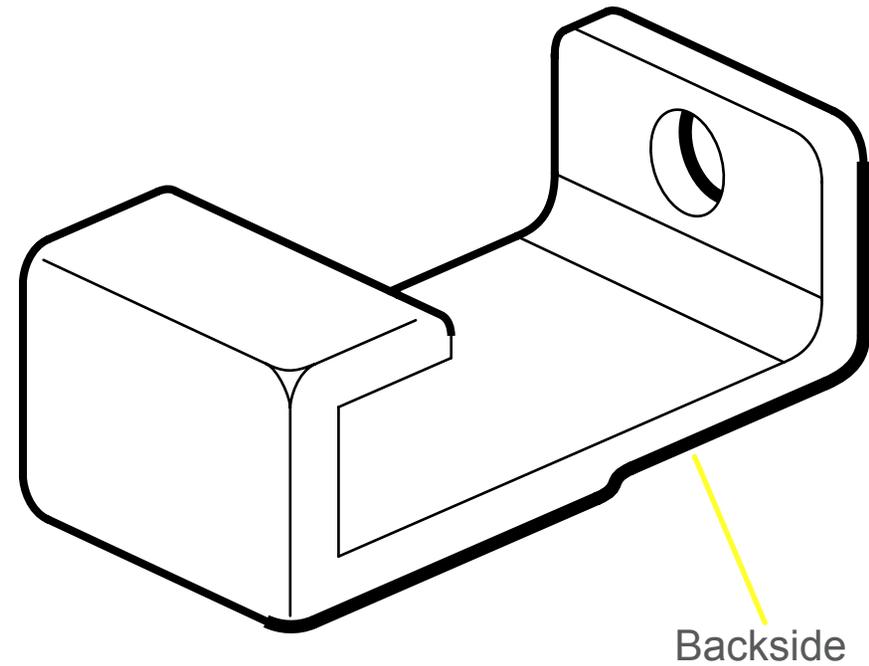


Here we have applied the outside style to the perimeter of the object. Notice how the hole now appears to exit the back of the object because it shares this outside line weight.

Five Lineweight Rendering

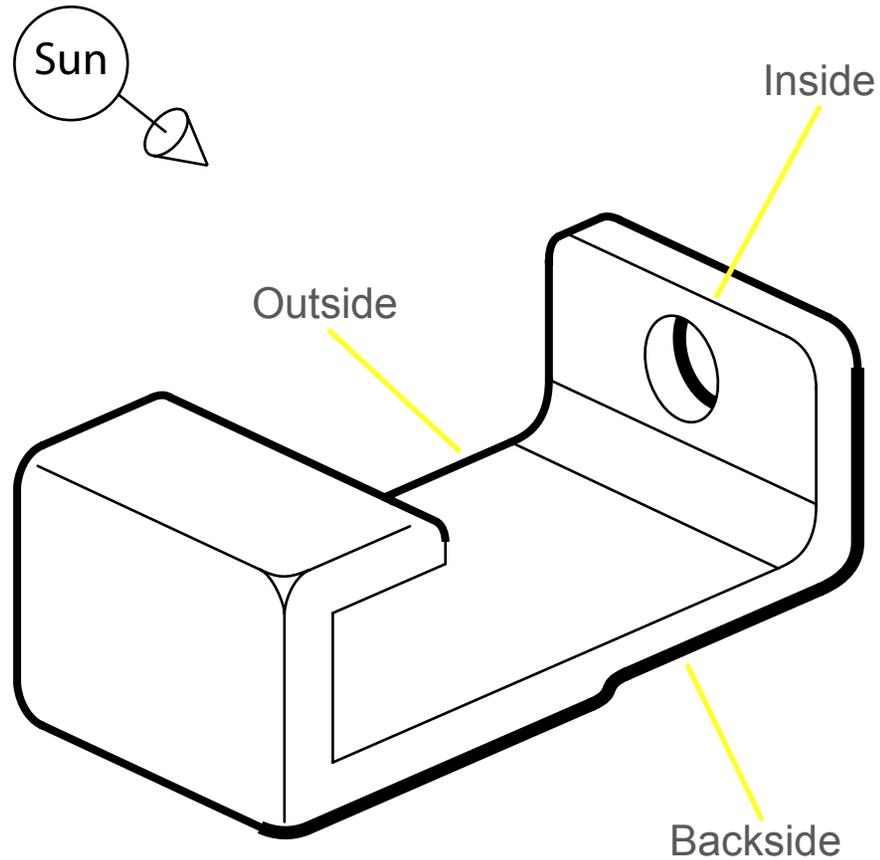


Here is the object with only two line weights applied, inside and outside. Soon we will make distinctions between the different kinds of interior lines.

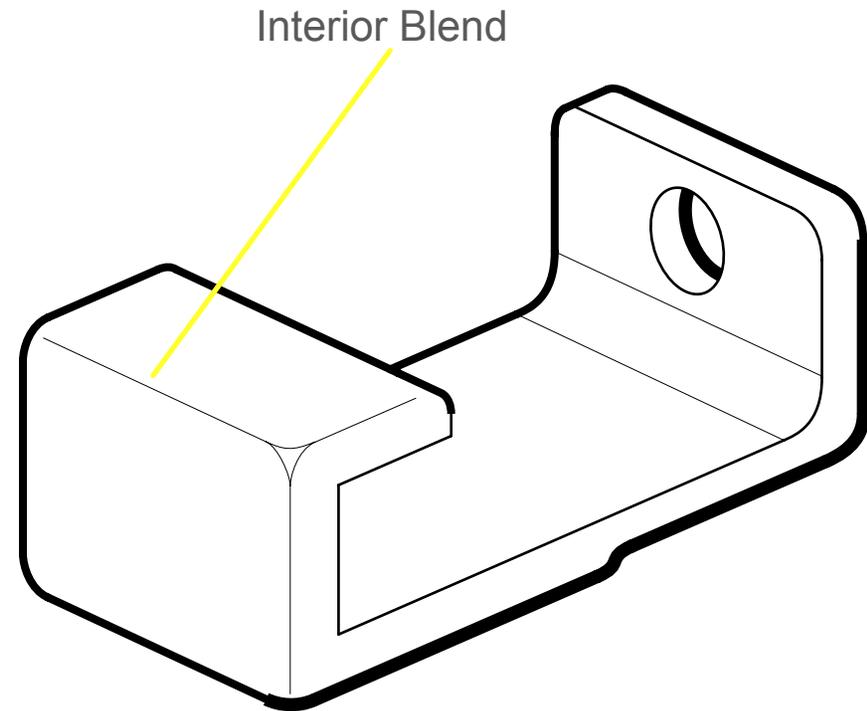


But first we apply the backside line weight to perimeter lines away from the sun. This visually grounds the object. Notice that the exterior line in the ellipse also gets the backside weight.

Five Lineweight Rendering

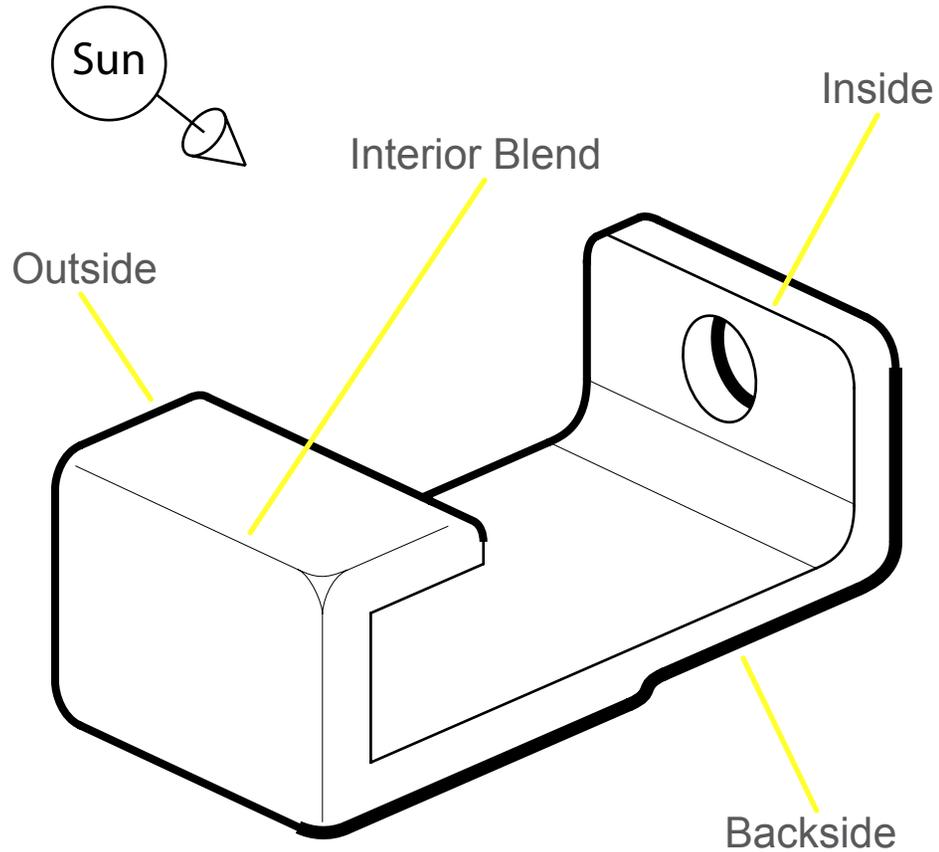


This is the object with three line weights applied, inside, outside and backside. Now we can begin to differentiate those interior lines.

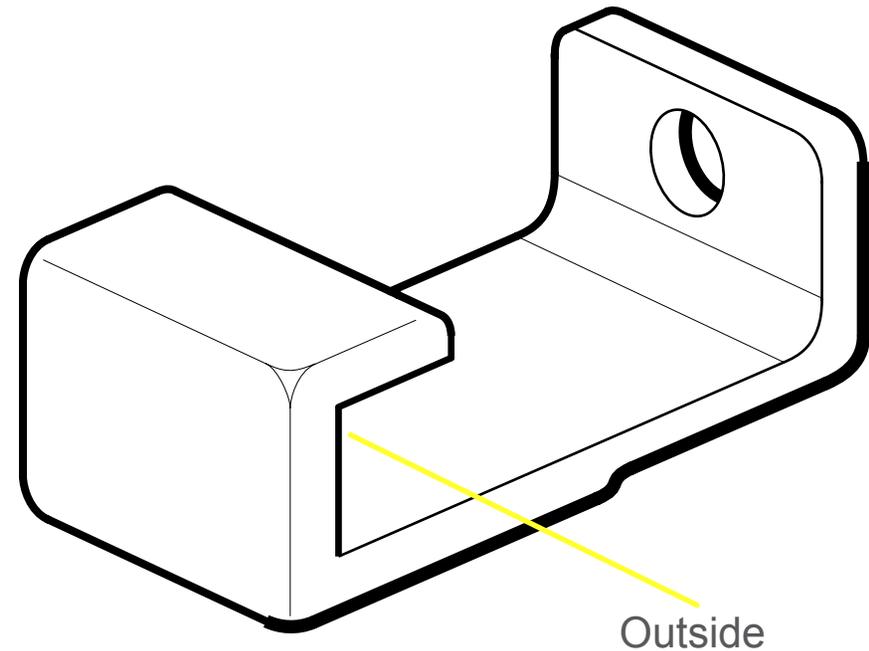


Here we have applied the interior blend line weight. This visually softens the curves in the form while still communicating their presence.

Five Lineweight Rendering



Here is the object with four line weights applied, inside, outside, backside and interior blend. Now only one step remains to complete the five lineweight rendering.



This is the final rendering. The last line weight we apply is the overhang. This is used where one part of the object overlaps another part within the perimeter of the whole object.