

# Introduction to 2D Design for Laser Cutting



Then, without leaving the Rectangle tool, switch selection from one rectangle to the other by clicking on them.

Rectangle drawing shortcuts:

- With **Ctrl**, draw a square or an integer-ratio (2:1, 3:1, etc) rectangle.
- With **Shift**, draw around the starting point as center.



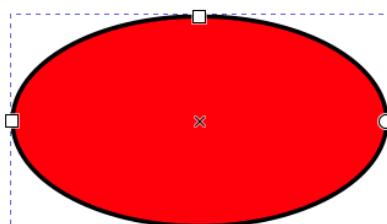
## Ellipses

The Ellipse tool (**E**) can create ellipses and circles, which you can turn into segments or arcs. The drawing shortcuts are the same as those of the rectangle tool:

- With **Ctrl**, draw a circle or an integer-ratio (2:1, 3:1, etc.) ellipse.
- With **Shift**, draw around the starting point as center.



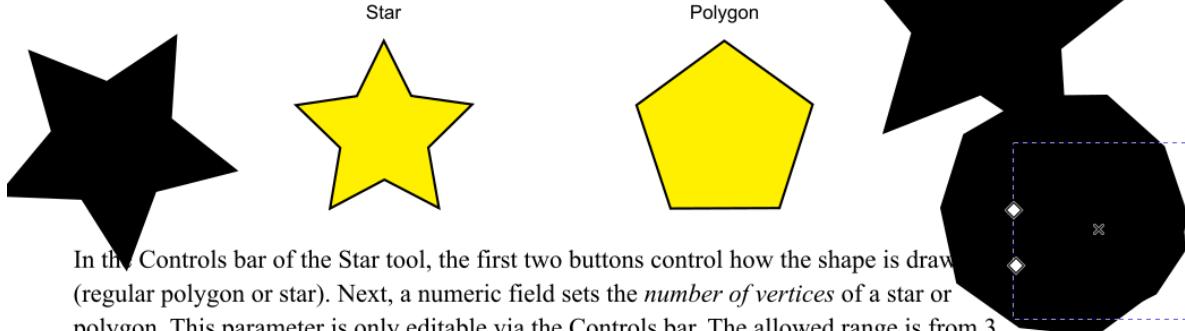
Let's explore the handles of an ellipse. Select this one:



## Stars

Stars are the most complex and the most exciting Inkscape shape. If you want to wow your friends by Inkscape, let them play with the Star tool. It's endlessly entertaining — outright addictive!

The Star tool can create two similar but distinct kinds of objects: stars and polygons. A star has two handles whose positions define the length and shape of its tips; a polygon has just one handle which simply rotates and resizes the polygon when dragged:



In the Controls bar of the Star tool, the first two buttons control how the shape is drawn (regular polygon or star). Next, a numeric field sets the *number of vertices* of a star or polygon. This parameter is only editable via the Controls bar. The allowed range is from 3

## Spirals

Inkscape's spiral is a versatile shape, and though not as immersing as the star, it is sometimes very useful. A spiral, like a star, is drawn from the center; while drawing as well as while editing,

- **Ctrl+drag** to snap angle to 15 degree increments.

Once drawn, a spiral has two handles at its inner and outer ends. Both handles, when simply dragged, roll or unroll the spiral (i.e. “continue” it, changing the number of turns). Other shortcuts:

Outer handle:

- **Shift+drag** to scale/rotate around center (no rolling/unrolling).
- **Alt+drag** to lock radius while rolling/unrolling.

Inner handle:

- **Alt+drag** vertically to converge/diverge.
- **Alt+click** to reset divergence.
- **Shift+click** to move the inner handle to the center.

