Let’s say that you would like to cut a sea star sticker to put on your water bottle! But how do you let the vinyl cutter know?

Just as you might need to speak to someone from a different country in the language that they understand, we also need to communicate with the vinyl cutter in the language that it understands.

The language of the vinyl cutter is vector files.

But what is a vector file?

A vector file is an image format made up of straight and curved lines. The vinyl cutter cuts those straight and curved lines into the material that you ask it to.

Because vector files are made up of mathematical formulas, we can resize them without losing any quality.

The image format that you’re probably most familiar with is raster files. Raster file images – like those you take with your camera – are made up of many tiny components called pixels. The vinyl cutter is unable to use raster files to make straight- and curved-line cuts.

The last two to three letters of a saved image will often let you know what kind of file it is.

Vector file image formats – compatible with the vinyl cutter – include .ai, .svg, .pdf, and .eps.

In the Innovation Lab, we often use .ai and .svg vector file formats.

.ai stands for Adobe Illustrator.

.svg stands for scalable vector graphic.

Now that you know the language that you’ll need to communicate with the vinyl cutter, let’s find a vector file image for you to cut.