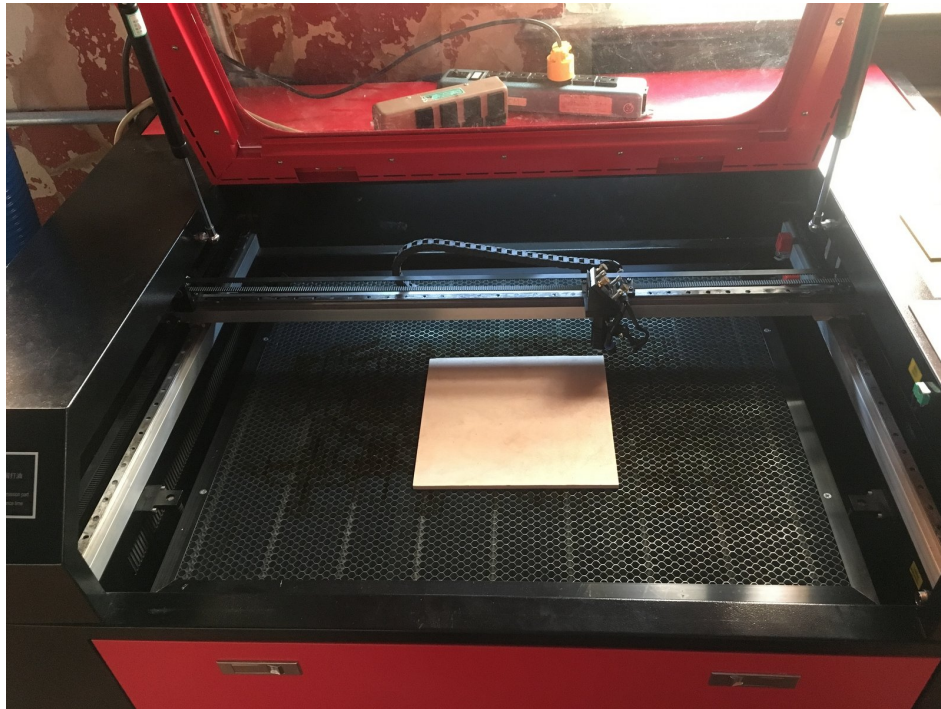


# 04 - Laser Cutter Focusing



## INTRODUCTION

The laser beam exits the lens in a cone or hourglass shape. The focal length of the laser corresponds to the smallest point or convergence of the laser beam. Focus is entirely a function of the material thickness.

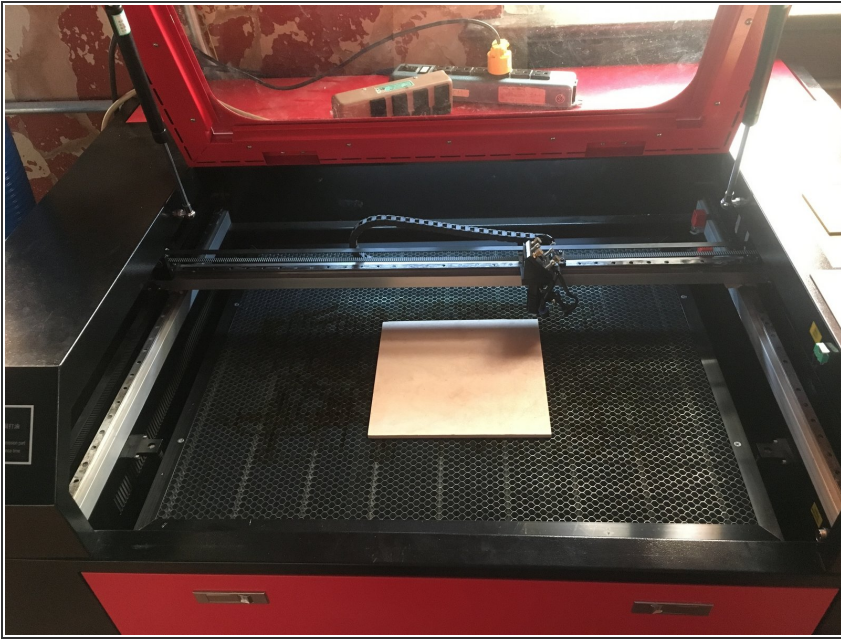
**Note: Focusing the laser should be performed any time the thickness of the material you're working with changes or when first setting up the laser for a job. (Don't assume the laser is in focus for 1/8" plywood, for example.**



### TOOLS:

- [Laser Focus Tool](#) (1)

## Step 1 — Place material inside machine

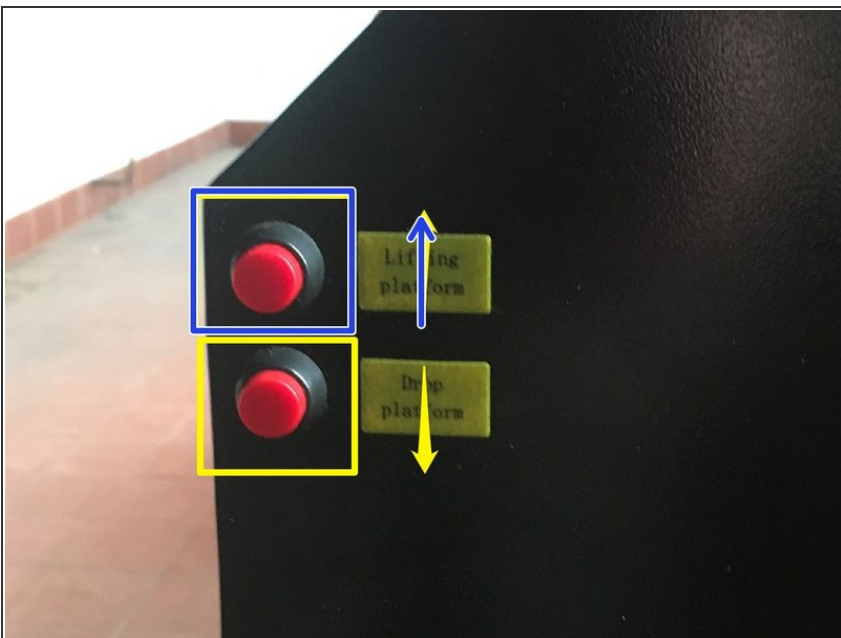


- Open the lid of the laser cutter and place your material on the cutting bed, under the laser head.
- The exact position of your material isn't important at this point. We're only concerned with adjusting the machine for the thickness of your material.



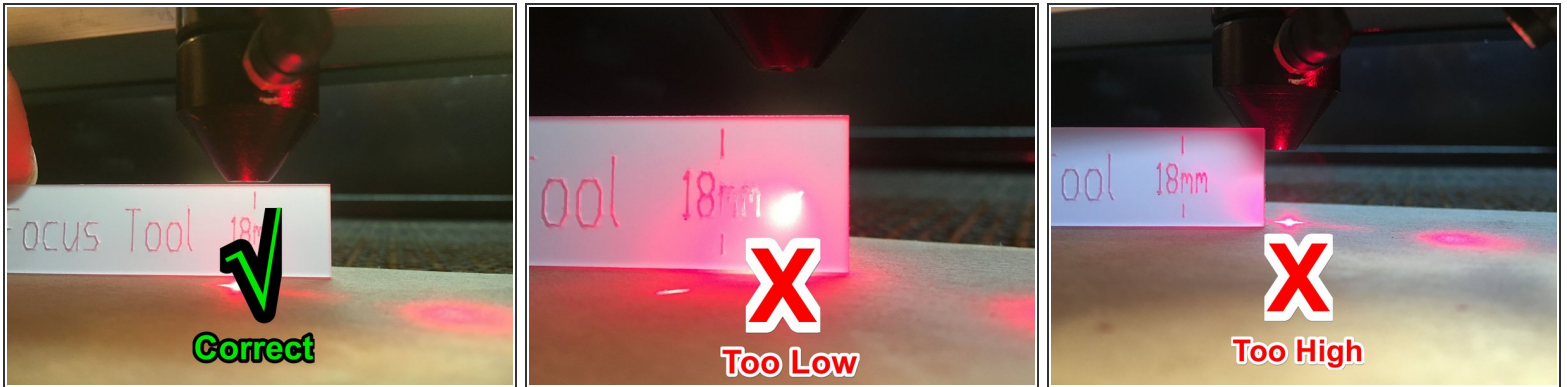
**NOTE: If your material is thicker than the last material used, you may need to press the “Down” button to lower the bed in order to fit it under the laser head. Be careful to not hit the laser head with your material.**

## Step 2 — Raising and Lowering the Platform



- The raise and lower buttons are located on the right side of the machine.
- The top button will raise the platform (move it closer to the laser head)
- The bottom button will lower the platform (move it further away from the laser head)

### Step 3 — Adjust the bed height according to the focus tool



- Use the raise and lower buttons to move bed until focus tool just fits between the laser head and your material.



Do not hold the focus tool under the lens while moving the bed up and down. This could cause the focus tool to jam and affect the alignment of the machine.



The appearance of the focus tool may be different than the picture shown. Use the focus tool shown in the beginning of this guide under "Tools Required"

You've successfully setup your focus height. Next up is [setting the origin](#)