R2D2
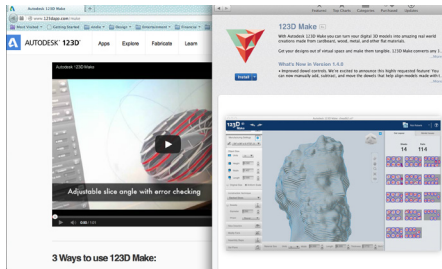
WHAT YOU NEED:
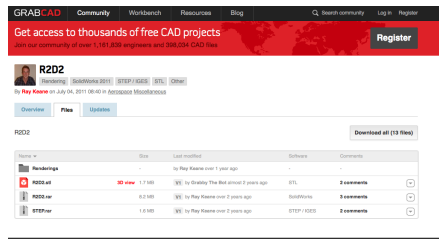- AUTODESK 123D MAKE
- STL FILE
- COREL DRAW
- LASER CUTTER
- WOOD
- GLUE/ADHESIVE

3D Laser Cut R2D2 Instructions
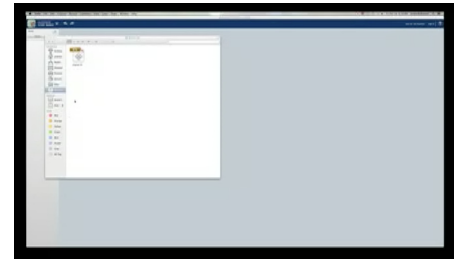
2014	INSTRUCTABLES ENTRY

R2D2

STEP 1: DOWNLOAD AUTODESK 123D MAKE

On the Mac app store or from http://www.123dapp.com/make.

STEP 2: DOWNLOAD STL FILE

The open source R2D2 file can be downloaded at http://grabcad.com/library/r2d2/files.
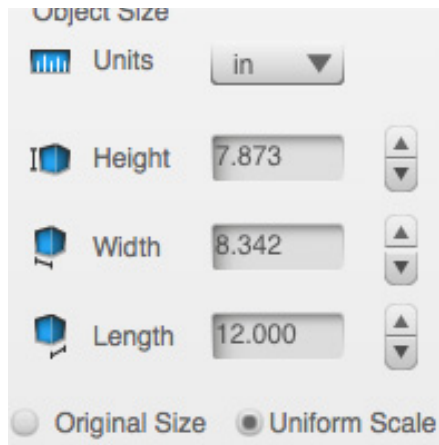
STEP 3: SLICE STL FILE IN 123D MAKE

Open 123D make and import the STL file into the program.
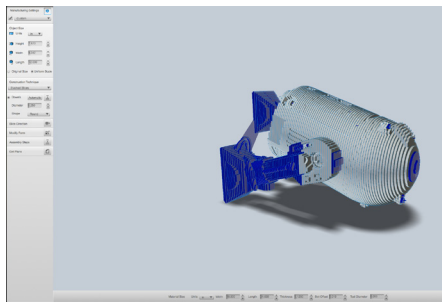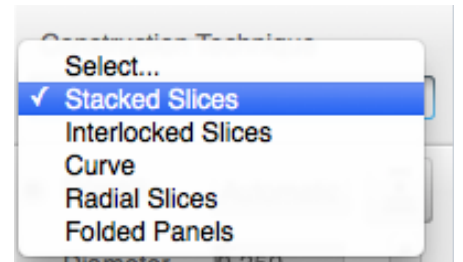

STEP 4: SET MANUFACTURING SETTINGS

*Click wheel to bring up settings at the bottom. Set width to 24",
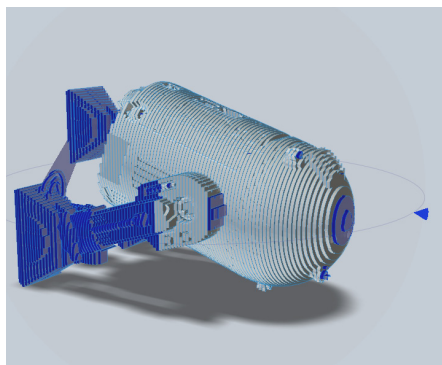length to 18" and thickness to .125" to fit the laser.*

STEP 5: SET LENGTH OF PROJECT

*On the left set the length to 12", this is how tall the finished
project will stand.*

STEP 6: SET CONSTRUCTION TECHNIQUE

*Select Stacked Slices from the Construction Technique menu
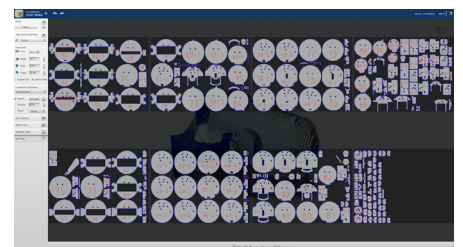in the left hand panel.*

STEP 7: CHANGE SLICE DIRECTION

*Click on change slice direction and drag the blue diamond to the
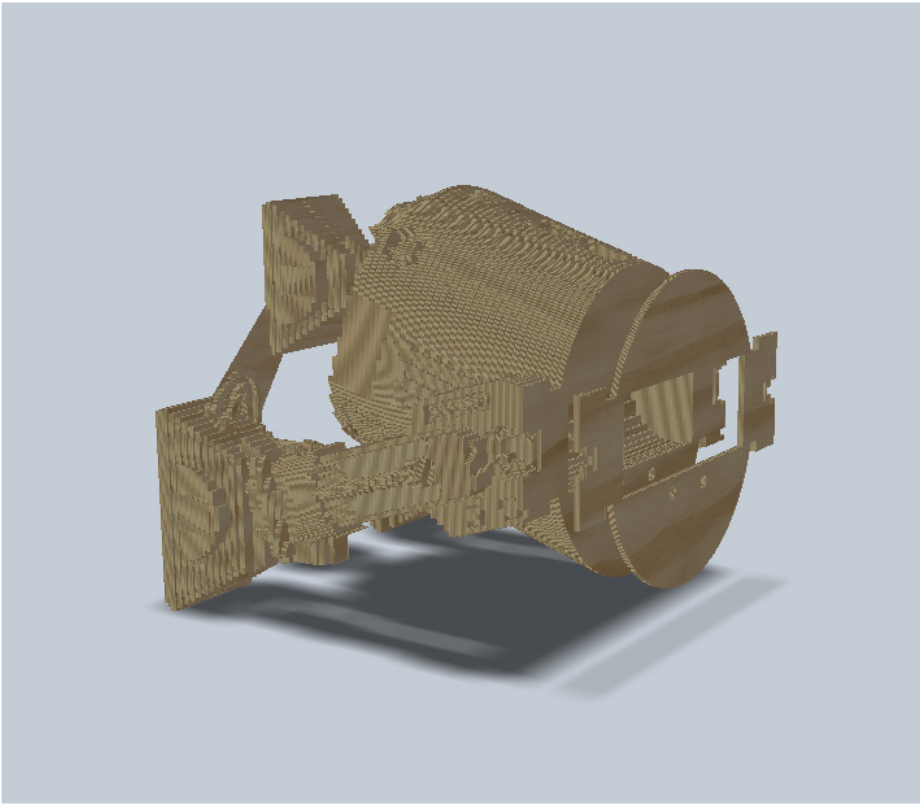direction you want the slices to be in.*

STEP 8: ADD DOWEL HOLES

*Select the radio button for Dowels so the computer will add
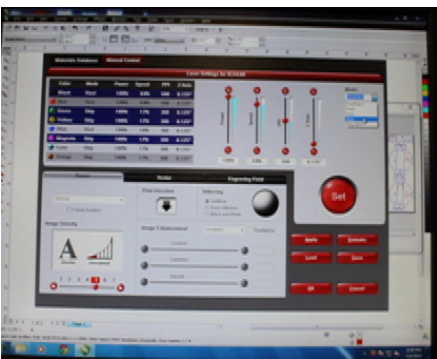dowel rod holes to the plans for extra support.*

STEP 9: GET PLANS

*Click Get Plans from the left panel menu. Save the plans as
EPS files in the location of your choice.*

STEP 11: OPEN EPS FILE IN COREL DRAW

Open one of the EPS files in Corel Draw and get it lined up with the art board. You will do this for each file.

STEP 10: SAVE & ASSEMBLY INSTRUCTIONS

Save the project and look at the Assembly Instructions for how to put R2D2 together. These can be accessed through the Assembly Instructions button on the left panel menu.
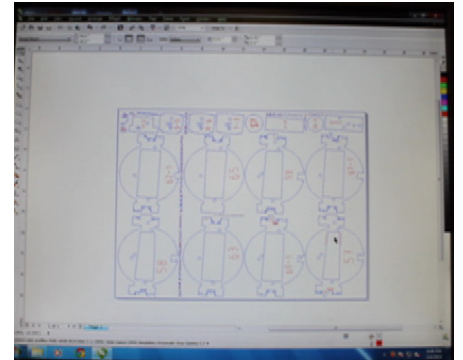
STEP 12: PRINT SETTINGS FOR LASER

Open the print box and click on preferences to open the settings for the laser.

STEP 13: SET THE POWER AND SPEED SETTINGS

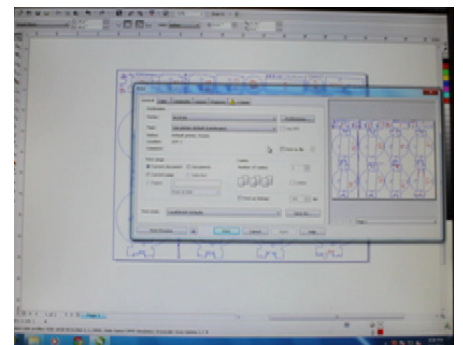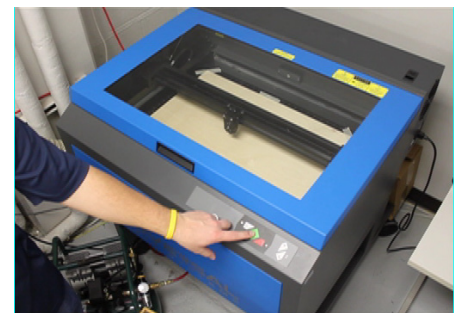Set the power and speed settings needed for the laser you are working with.

STEP 14: FOCUS THE LASER

Follow the necessary steps for focusing the laser you will be using to cut out the pieces.

STEP 15: PRESS PLAY ON LASER

Press play on the laser to start cutting the first sheet of wood. Repeat for the necessary number of sheets of wood.

STEP 16: ORGANIZE PIECES

Once all of the pieces are cut out, organize them by layer.

STEP 17: VENTILATION & SPACE

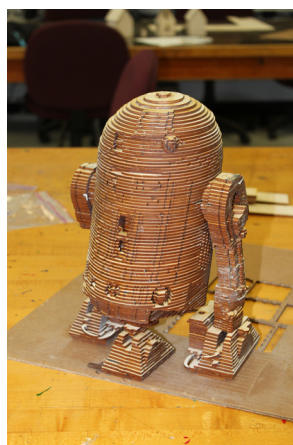*Make sure you have proper ventilation and space to work.*

STEP 18: ASSEMBLE R2D2

Using the instructions from AutoDesk 123D Make start assembling R2D2 using spray adhesive or other glue.

STEP 19: LET GLUE DRY

Allow glue time to dry, using clamps of other methods to hold the slices in place while the glue dries.

STEP 20: ENJOY YOUR R2D2

Enjoy your awesome R2D2!!

FINAL PRODUCT

Here's the final product!