

Process Plans

Introduction

Process plans are critical for doing well in 2.007! You will do poor design work, and your grade will reflect it, if you chop and build with no thought beforehand!

Process plans allow you to make the most of your time in the shop. They also help you to structure your thoughts by forcing you to think about how you are going to build your parts and machine before you enter the shop.

For a lot of you, this will be your first long term **structured** design project. The format that your process plans must be in is the following:

Process Plan Table

You should make a table with the following columns. Make a row for each major step in making a part.

Step	Tools Needed	Materials Needed	Description
1	.	.	.
2	.	.	.
3	.	.	.

Tools Needed:

This is a list of all the tools needed to do the current step. Include sizes as appropriate ([drill](#), [tap](#), die, etc.)

Materials Needed:

This is a list of all the materials needed to complete the step.

Description:

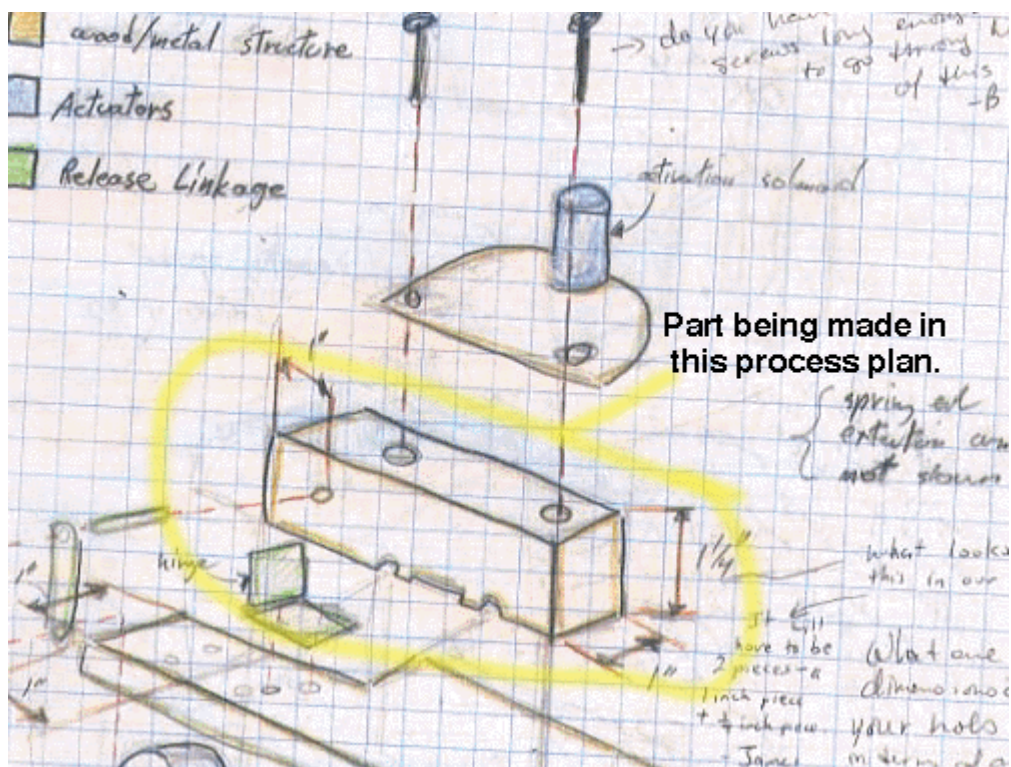
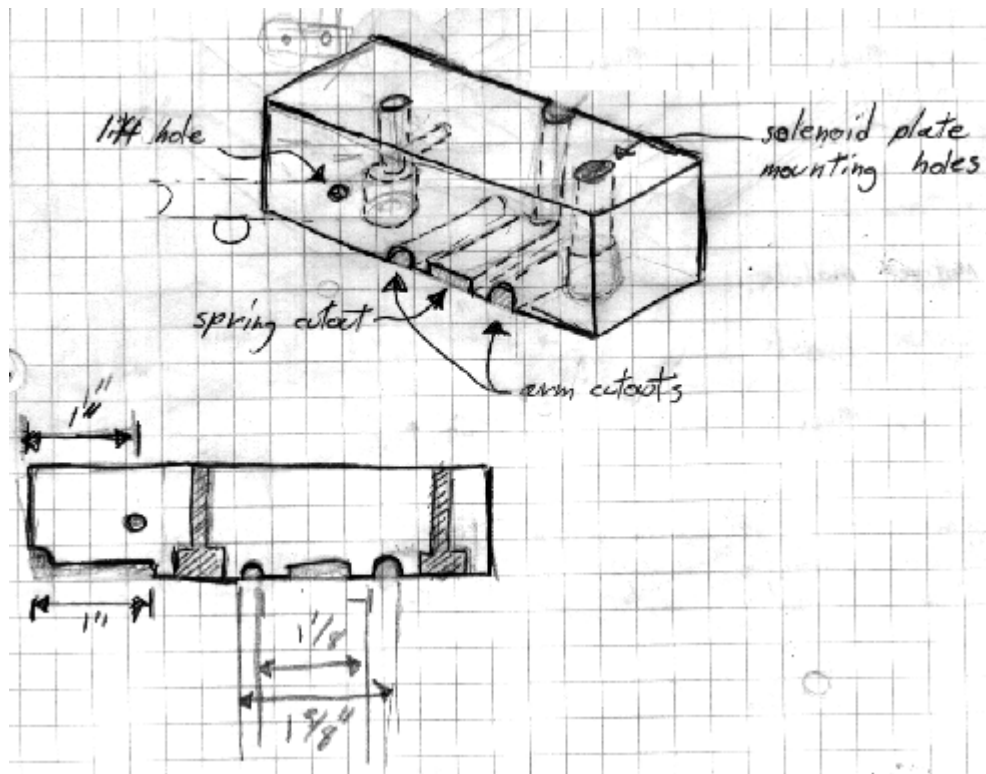
A brief outline of what you have to do to complete the current step.

Process Plan Drawings

Good drawings should contain all of your dimensional information. You should have at least one (for complex parts, more likely two or three) good dimensioned drawing for each table. The drawings should include the following:

- At least one isometric view of the part.
- Sketches of surfaces with important features that are **not** shown in the isometric drawing.
- Clearly labeled dimensions.
- A note telling which dimensions are critical and which are not.

Sample Process Plan



Step	Tools Needed	Materials Needed	Description
1	bandsaw, C-clamp	1/2" and 1/4" basswood, wood glue	Cut 2 blocks from the 1/2" basswood and 1 block from the 1/4" bass to build the upper block showing in sketch 6.2c and 3.4c. Glue and clamp the three pieces together.
2	bandsaw	part from step 1	Cut the grooves shown in sketch 6.2c with the bandsaw.
3	#32 drill	part from step 2	Drill solenoid mounting holes and the lift hole.
4	drill (larger)	part from step 3	Counter bore solenoid mounting holes on underside of upper block to the head of the 4-40 screws fit.