Create a sketch / hand drawing

**WAIT**

(anywhere from 2 hours to 3 weeks depending on shop queue)

* If there is a problem - Sam or PE will contact you
* You will be notified via email when job is complete

Create document package

* Design Lab Requisition Form with **SIGNED** PE approval
* Paper copy of CAD drawings
* Flash Drive - Available in PE office (JEC 2027)
	+ .DXF files of part drawings – 1:1 scale
* CAD drawing and model files
	+ NX - .prt file AND parasolid file (\*.x\_t)
	+ SolidWorks - .sldprt & .slddrw

Review CAD drawing With PE

Print out CAD drawings (Size A – 8.5” x 11”)

Review material with needs with PE

* If material is common:
	+ Talk to PE and/or Sam Chiappone for acquisition from campus sources
	+ Follow purchasing process for individual material order
* If material is special - PE may direct you to:
	+ Research procurement options, then follow purchasing process for individual material order
	+ Change design if too special

Create CAD 2D drawings ( w/ dimensions, using standard RPI B-size Template)

* One sheet for each individual part
* Assembly and exploded view if appropriate

Create CAD solid models (use only NX or SolidWorks)

* One model file for each individual part
* Assembly file if appropriate

Review design feasibility with PE

* This review may be repeated before moving on
* If the mfg. process is **simple** - move on to next step
* If the mfg. process is **complex** - PE may direct you to review with Sam Chiappone

Review design and feasibility with one or more teammates

Deliver Document Package to Sam Chiappone, or place in bin outside JEC 3100A

Iterate as needed

Iterate as needed