

## EP1000 Tools



# SP Library / Fablab Operating at

- T1441~3 Engineering Academy Fab Lab
- T11C Fablab Central
- Makerspace @ Library

Each FabLab has equipment/tools unique to its function. All FabLabs facilities are open to ALL students of Singapore Polytechnic



## **Equipments**

#### **Manual Operations**

- Simple Hand Tools
- Powered Hand Tools (Drills, Saws, Sanders)
- Foam Work
- Acrylic Benders

#### **Digital Fabrication**

- 3D Printers & 3D Scanners
- Laser cutters
- Flatbed cutters and routers
- 3-axis Milling Routers, PCB and Small Scale Routers
- Vacuum Formers
- Mold Making and Casting
- Digital Embroidery Machines
- Paper & Vinyl Cutters
- Hobby Craft DyeSub Printing, T-Shirt Heat Press, Mug Creation, Badge Making



#### Software Tools

Very essential tools for the digital fabricator Use Open Source Tools (Cross-platform)

- Pure Text Editor Atom, SublimeText3, Visual Studio Code(W),
  Notepad++(W)
- Raster Graphics GIMP
- o Image Resizers FastOne Photo Resizer(W)
- o Image Capture PicPick(W), Shutter(L), Snaglt(M)
- Vector Graphics InkScape, LibreCAD
- Full CAD System Fusion 360
- Embedded Controller IDE Arduino
- Browsers Firefox, Chrome, Chromium
- PortableApps



#### Software Installation

Text Editor Notepad++

Graphics GIMP

Editor Vector Inkscape

**Editor Screen** 

Capture Image

Resizer

CAD System Fusion 360

IDE

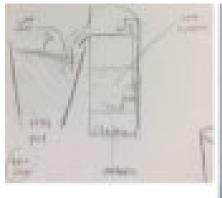
**Browser** 

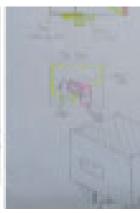
Include this table in your documentation

- Add to the contents, should you change
- Keep old choices and reasons to compare



## Importance of Sketches





- 1. Allows you to express your thoughts
- 2. Need not be pretty
- 3. Refine your sketches as you formalize your design
- 4. Add dimensions to the sketches
- 5. Ink your final designs to make them stand-out.
- 6. Sketches help in refining your digital designs



EP1000 Tools End