Key Terms & Concepts

General

Open-Source- The belief in free access to and redistribution of the design processes and details of a given project.

Peer to Peer Network- "P2P"- A filesharing system that allows users to download various types of media files from a network of computers connected by filesharing software and an internet connection.

Workflow- A sequence of operations used for a particular process.

Software

User Interface- The platform of interaction between a user and a program or machine.

Graphical User Interface- Commonly referred to as a GUI (pronounced "Gooey"). A type of user interface where user commands are represented visually through graphics and icons as opposed to text.

Raster Image vs Vector Image

> Raster Image- An image composed of a series of cells referred to as pixels. JPEGs are a common type of raster file. The resolution of raster images is measured in DPI (dots per inch).

> Vector Image- An image composed of a series of mathematically defined coordinates. This type of image does not have a resolution, and can be scaled infinitely without impacting the image's sharpness.

CAD/CADD - Computer Aided Design; Computer Aided Design & Drafting.

FEA, FEM- Finite Element Analysis, Finite Element Method. A method of dividing a complex calculation into a series of simplified steps. Particularly relevant in Fab Labs as this type of analysis is often embedded into design software, and geared toward non-engineers.

Parametric Design- Similar to but not necessarily FEA. Basically, the use of mathematical inputs to generate a variable response in a given system. For example, a modular system is composed of repetitive modules, whereas a parametric system may start of as a series of modules, but after feeding certain inputs into the system, each module will vary.

Equipment

CNC- "Computer Numerical Control"- Machinery operated through computer programmed commands.

CAM- Computer Aided Machinery, or Computer Aided Manufacturing

Toolpath- A series of coordinates that directs the movement of a CNC tool.