**Printed Circuit Board (PCB) Design**

Steps:

Start

Ckt schematics

Lib

Parts

Footprint

Positioning

Manual routing

DRC

Place order

Links and references.

The design was made in Eagle PCB design software. The design process starts with circuit schematics. In preparing your schematics we encountered few challenges with selection of equipment dimension and dimension terminology(units). The designer should be aware of the dimensions of equipment that are to be used. After getting the idea of equipment add the library of that equipment to eagle through manage library option. Now, the designer can get that item schematic and add it to the design schematics. Complete the schematics.

Few tips for design:

* Make sure the dimensions of auxiliary equipment size matches the equipment. For example, the supply port size is 4mm pitch 4 pins if I use 2mm pitch 4pins my circuit is practically cannot be implemented.
* Have an clear idea of the equipment and their availability in the market before getting starting. Some times your design may be correct but you will not getting appropriate equipment for installing on circuit board.
* Use Vcc and Gnd pins for reducing circuiting complexity.

After the schematics are done, you can see a button i.e. schematic to board button. Using that button, the footprint page will be opened. Here you will be able to use some skills in designing a compact perfect design. Selecting the trace with (in mils) accordingly based on your current ratings. We used a 2 layered 16 mils trace width for safer side to accommodate 4A flow of current. Place all your equipment in the square (board area) and can be positioned them upon the designers will. Click on auto net list button to run simulations for possible tracing options. The designer can select one or draw the traces manually( manual is mostly preferred for better results). Continue with DRC(design real check ) to check the possible errors while manufacturing. Make sure that there are no errors. After all the errors are cleared create the Gerber files for manufacturing company to provide those files to the manufacturing machines.

Tips: