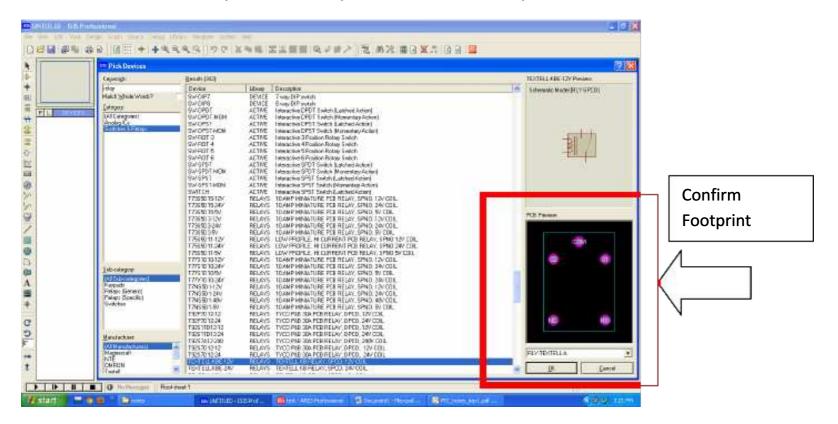
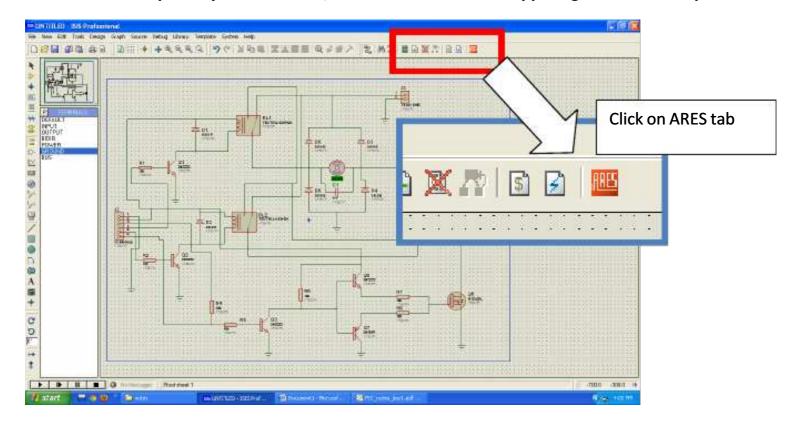
## **PCB design using Proteus**

**Prepared by: Mohamad Taib bin Miskon** 

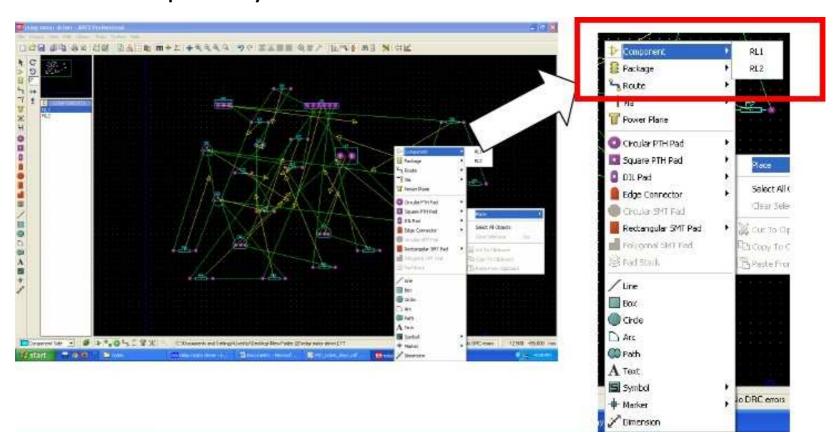
- 1. Open ISIS professional and create a new file
- 2. Start drawing your schematic. Make sure all components have PCB footprint or you might need to consider replacement component with similar footprint.



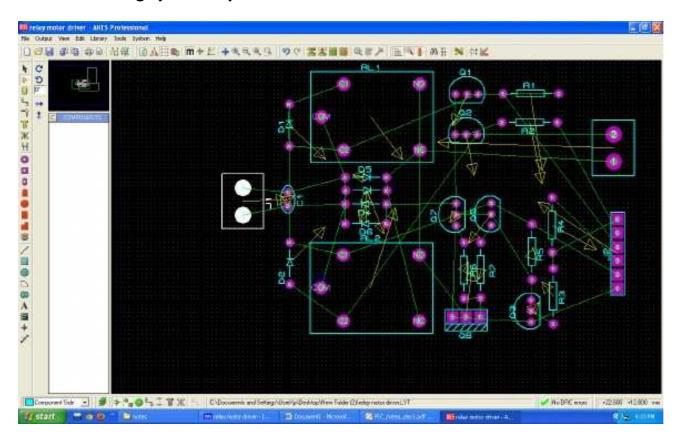
3. Once completed your schematic, click on ARES tab at the upper right of ISIS workspace



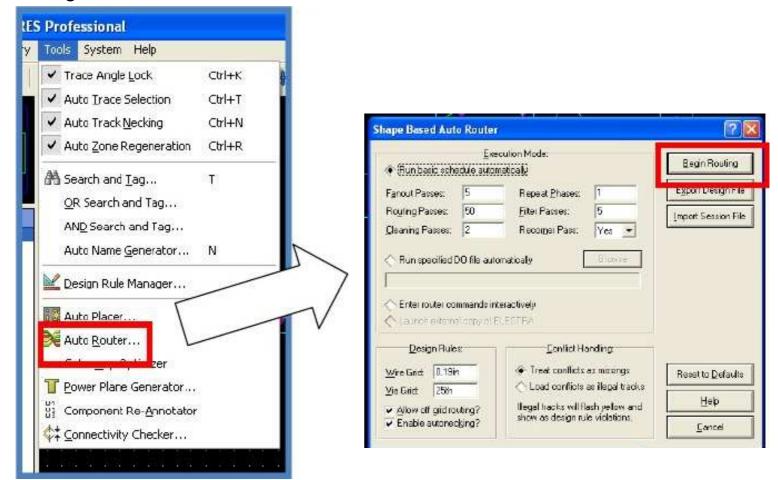
4. A new ARES workspace window shall appear. Right click>Component>chose the component number and place one by one



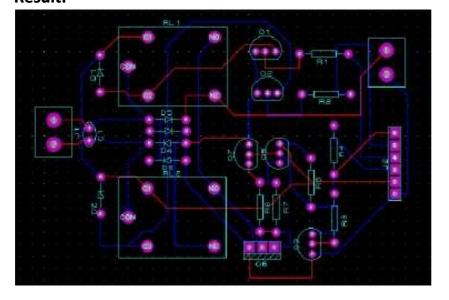
5. Rearrange your component



# 6. Click Tools>Auto Router. A shape based auto router window will appear and click Begin Routing



#### 7. Result:



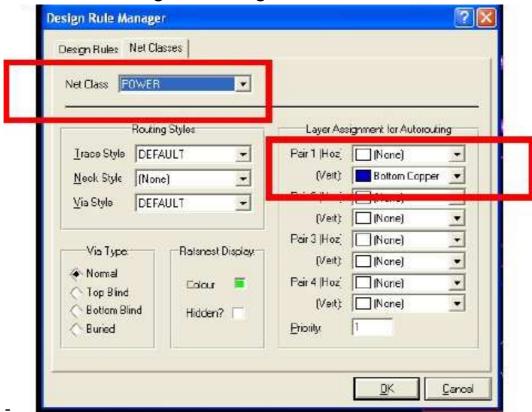
By default, the autoroute is set to route at double sided PCB

**Red Trace -> top copper** 

Blue Trae -> bottom coper

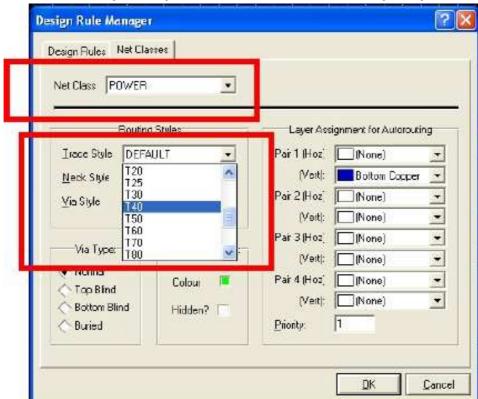
#### 8. If you are using a single layer PCB:

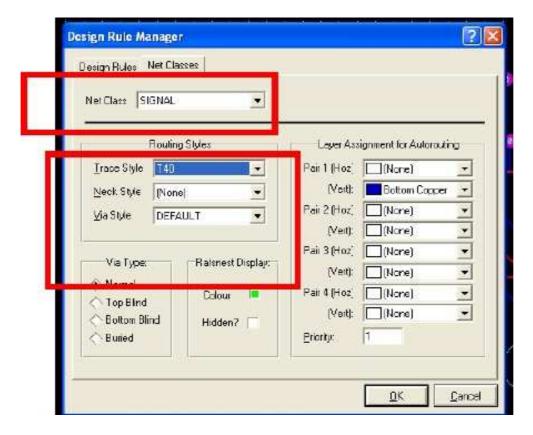
- Before routing, you need to set the layer assignment for bottom copper only.
- Click Tools>Design Rule Manager>Net Classes



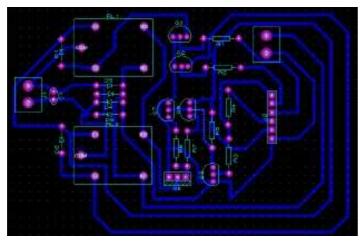
Design Rule Manager Design Rules Not Classes Net Class SIGNAL Routing Styles: Lever Assignment for Autorouting Par 1 (Hoz None) Inace Style | DEFAULT • (Vert): Bottom Copper Neck Style (None) • rarzinuz [\_\_\_inonej DEFAULT . <u>Via Style</u> (Vert): (None) • Par 3 (Hoz None) ٠ Via Type: Ratsnest Display: (Vert): [None] • Normal • Colour 👅 Pair 4 (Hoz) (None) ◇ Top Blind (Vert): (None) \* Bottom Blind Hidden7 1 Priority. Builed Cancel

- 9. If you want to adjust the trace width:
  - Click Tools>Design Rule Manager. Click on Net Classes tab. Select your desired trace style on Trace Style Drop down menu. You need to specify the trace style for both Net Class.

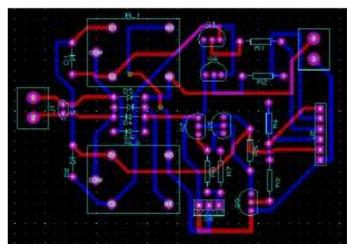




#### 10. Next, begin autoroute



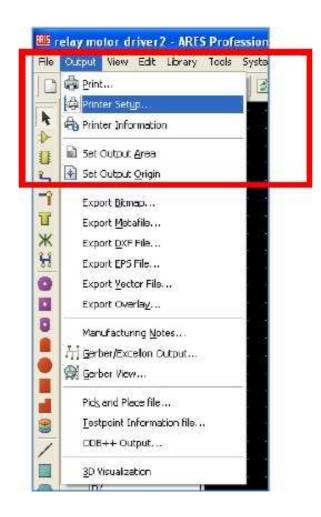


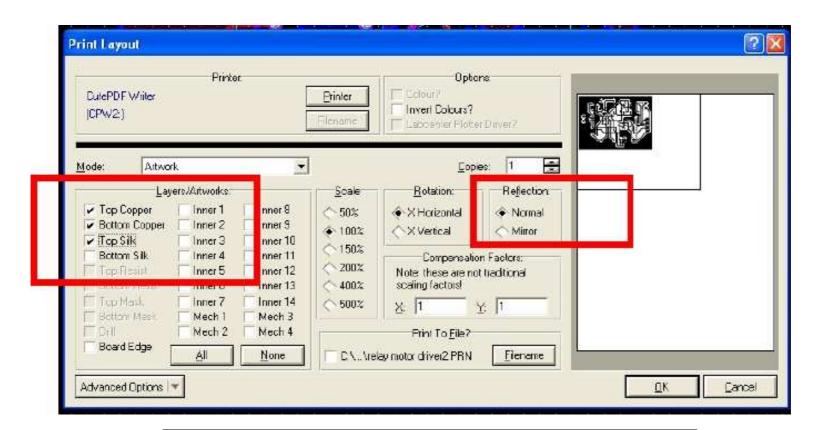


Result if you choose double layer

### 11. Printing the layout:

- Click Output > Print





Select the layer that you want to print and reflection type

#### **Copper top:**

#### **Copper bottom:**

