

**CET246 Electronic Design Automation**  
**David J. Broderick, Ph.D**  
**Laboratory Exercise #6: Schematic Capture**

**What to do:**

- 1) Open KiCad and start a new project
- 2) Create a new schematic in Eeschema (within KiCad)
- 3) Redraw the attached motor controller circuit
- 4) Run CvPCB and associate all components with a footprint.
- 5) Generate the Netlist from within Eeschema
- 6) Run Pcbnew from the toolbar in EeSchema
- 7) Import the netlist in Pcbnew from the toolbar
- 8) Arrange the components
- 9) Make all traces necessary to remove the ratnest. Use the appropriate layers
- 10) Draw the board edge on the **Edge Cuts** layer. The board shall be no larger than 100mmx150mm.
- 11) Include mounting holes
- 12) Run DRC (bug) check with default design rules and resolve all errors
- 13) Generate all gerber, drill, and map files as done in the previous lab

**What to turn in:**

- 1) A single zip file with all PCB, library, gerber, drill, and map files. Name the file according to this format:

Course\_Semester\_YourLastName\_Lab##.zip

So I would name my file:

CET246\_Fall2018\_Broderick\_Lab06.zip