

EML 2322L – MAE Design and Manufacturing Laboratory

Competition Paperwork Checklist

The following checklist ensures each group has all required paperwork due the day of the course competition. Even if nothing changed since the re-submission of DR3 (which is rare), every group must print a new copy of the following paperwork for submission and evaluation during the competition (*please DO NOT remove original graded pages from your group's design report notebook*).

1. UPDATED Budget & Purchase Orders:

- YES NO Does budget include accurate descriptions and amounts of all materials used on the final prototype (including sheetmetal types and thicknesses)?
- YES NO Does budget include total length of 80-20 used? Even if the amount used is less than the free course allotment, ensure the total length is accurate.
- YES NO Were accurate purchase orders prepared for all raw materials and purchased components used on the design project?

2. Engineering Change Notice (ECN) Forms:

- YES NO Were ECNs created for each change to the prototype or each drawing revised to facilitate component manufacturing since DR3 resubmission?
- YES NO Is each ECN completely filled out and signed by all team members and a TA?
- YES NO Does each ECN include a copy of the original drawing(s), as well as a revised drawing(s) showing the design change(s) and updated revision number (i.e. *Rev. B, C, etc.*)? (*Please do not remove the original part drawings from the design report notebook.*)
- YES NO Were all ECNs submitted within one week of being initiated?

3. Robot Wiring Schematic:

- YES NO Does the wiring schematic clearly specify where each wire connects to the control box?
- YES NO Did your group verify the accuracy of the wiring schematic?

4. UPDATED BOM & Assembly Drawings:

- YES NO Are proper subassembly drawings present for each subassembly, as requested in DR3?
- YES NO Do updated assembly drawings and BOM balloons clearly show each component of the final prototype? If not, include additional and/or exploded views as necessary.
- YES NO Are all of the BOMs noted in the [DRT DR3 submission instructions](#) included?
- YES NO Do the BOMs include (1) part numbers for components possessing detailed drawings, (2) part quantities, (3) item descriptions and (4) unique balloon numbers?
- YES NO Do the BOMs include all fasteners used in the prototype and is each properly denoted with the correct thread spec, length and head type?
- YES NO Are all part quantities correct (i.e. the number of angle brackets, ¼-20 button heads, etc.)?
- YES NO If using string, duct tape, zip ties, or adhesive, is it (or are they) included in the BOM?

5. Final Notes:

1. Ensure checklist items are completed during your last formal laboratory session before competition, as no contact with the robot is allowed between your last laboratory session and the class competition.
2. Assemble all of this documentation in the appropriate new appendices BEFORE arriving to lab for the competition, as noted in the [Design Report Template](#).
3. Ensure your team number is displayed on both sides of the robot using 3" tall characters.