

Project 2: Product Assessment

Guidelines for Product Disassembly in AME Design Studio – B-19 Fitzpatrick

For this project you will need to meet with your group in B-19 Fitzpatrick to disassemble two mechatronic football players. Your group will be assigned one system from each of last year's squads, blue and gold. The systems will be on tables with the table numbers clearly marked. Find the table that corresponds to your group number, which will be randomly assigned once your memo has been approved. Viewing last year's game video may allow you to identify the mechatronic players you are given and give you some insight into their performance.

As you disassemble the systems, do not disassemble any "standard" or outsourced assemblies (e.g. motors, bearings, circuit boards, etc.). It should be obvious which parts have been outsourced (i.e. purchased from part vendors) and which have been fabricated in-house using B-19 tooling or rapid prototyping. The "tackle sensors" with the embedded lights should NOT be disassembled. If you have questions about whether or not to disassemble a sub-assembly, please contact the TA Project Coordinator, Mr. Newkirk. Make every effort to disassemble the systems without damaging the parts but if a part is damaged during the process (and that may occur due to no fault of your own), just annotate that in your report.

Room B-19, AME Design Studio, has a combination lock. When your pre-disassembly memo has been approved by the TA Project Coordinator, he will send you the combination to the room. Only members of your group are allowed access to the room and you are asked to only use the area and equipment designated for this project.

Hand tools will be provided until the due date of this project. The tools can be found in lockers 16 and 18. When you are finished with the tools put them back in the locker(s) from which they came so the next group does not have to search for tools. If you want to use some of your own tools, that is acceptable but do not leave them in the Design Studio. As stressed in our earlier discussion, safety when using the Design Studio is very important. None of the hand tools are inherently dangerous, when used properly. Please take care and immediately report any accidents.

You are also encouraged to make sure that everyone in the group has the chance to participate in the disassembly process. Please share the fun. As you disassemble the robots leave all of the parts on your table. Do not remove any parts or tools from B-19.

Once you have completed disassembly both of your mechatronic systems contact Mr. Newkirk so the parts can be collected.