

6.141 CDE Technical Grade Rubric

Spring 2015

Every grade started as “A”, then was decremented by one step (to A-, B+ etc.) for each major deficiency. A deficiency occurred whenever any of the following questions had a “no” answer (the sub-bullets describe or list various necessary ingredients of the major aspect):

- Did the document crisply *restate* the Challenge problem?
 - A concise restatement: all salient aspects included, and minimal fluff.
- Did the document distinguish *assumptions* from *design decisions*?
 - Assumptions: terrain character, block attributes, map contents, time, energy
 - Design decisions: robot shape, number of arms, sensor choice etc.
- Did the document describe the *high-level approach*, rather than just give details?
 - Even CDE’s by non-CS people should describe the system’s high-level operation.
- Did the document include a *system block diagram*?
 - Did the block diagram represent both high- and low-level behaviors?
 - Were all *edges* labeled with inter-module *dataflow/message semantics*?
 - (Some students confused block diagrams with finite state machines.)
- Did the document discuss how to handle *errors, failures, and unexpected events*?
 - E.g., an unexpected collision, dropping a block, getting lost, etc.
- Did the document include concrete and credible development *milestones*?
 - Was an early architecture and *specification* effort proposed?
 - Did the milestones include *concrete capability goals* each week?
 - Did the milestones include *stubbing, integration and testing* early on?
 - (Non-EECS students were given a pass on pure software aspects.)
- Did the document include a coherent *conclusion* that was not just fluff?
 - Did the conclusion recapitulate the goals and high-level approach?

Most grades were A, A-, or B+; there were a few “R” grades (revise and resubmit for a grade).

Any student is welcome to revise and resubmit the CDE if s/he wishes to. If you do, make sure to include your original CDE, or a copy, so that we can reevaluate the resubmission in context.