

ECE 468/668 (Embedded Computing)

Final: Embedded computing product discovery

For the final, each team of students must report on one of the vast number of consumer products that makes use of embedded computing, and must undertake the process of locating information about the technical details of that product. Example products include toys, cellular phones, ATM machines, DVD players, etc. The product choice should be emailed to the instructor (CC-ing the team members) by the date given at the course website. **This is a hard deadline! The penalty for missing this deadline is one letter grade on the final.**

Students are to work in the teams assigned in class. Each team is to research information about what is "inside" a specific product. Required information includes any processor(s), the processor type(s), memory, bus(es), peripherals, I/O devices and sensors, operating system, application code, codec(s), scheduling, power management, development tools and platforms, and anything else pertinent to the embedded computation taking place inside the product. (Some of the items in the previous list may not be applicable depending on the product chosen.)

The team must prepare a report, not to exceed three pages. The report must **clearly** explain the design of the product and the purpose of each embedded computing component. Technical detail should be included, as should manufacturer and cost data.

A bibliography must be included. The student primarily responsible for digesting the information from each source must be indicated. The bibliography should not exceed eight entries, and is not included in the three page limit.

Contacting the manufacturer, opening up and examining the product, and searching the web for information, are all highly recommended.

Presentations will take place during the two class periods listed at the course website. Reports are due on the date indicated at the course website. Presentation dates will be determined first-come-first-served based upon email of product selection. For the presentations, a member of each team will give a 5 minute presentation of the team's findings, plus 2 minutes for questions. Grading will be determined based upon both the report and presentation. Plagiarism and lazy reporting techniques will be penalized. The ability to summarize and explain the design of the product will be rewarded.