

Final Project Design Your Own MP3 Player!

Presentations during finals August 16th

Documentation due online August 18th

Although you have, at this point, built a basic MP3 player that actually plays MP3s, you can see that you are still a ways away from having a full-fledged working device. Issues such as use scenarios, conceptual models, mechanical skins or housings, and interface designs have yet to be worked out. Your ideas have yet to reach the “proof of concept” phase, where you show that what you envision can be built, much less the degree of validation that comes from “proof through use” where you can assess whether your designs actually function in the arena you intended. The goal of this final project is for you to have a fully functioning and well-designed MP3 player of your own design.

Activity Your project is to design and build a MP3 player to suit a specific application of your choosing. To this end, you have been asked to articulate, through interaction diagrams, interface sketches, and written descriptions, exactly what it is you are proposing to build, and to enumerate what some of the design challenges that you foresee. You should plan on building multiple working iterations of your design to enable increasing levels of refinement towards your point of view, rather than hoping that all the different aspects of the design will miraculously come together just in time for the final presentations.

Presentations We will be having in class progress presentations on August 13th; please plan on presenting a functional prototype and a list of what remains to be done on that date.

Final presentations will be in the first floor lobby of the Packard Electrical Engineering Building, from 7:00 pm to 10:00 pm, on August 16th. Do think ahead about what you might need (power cords, speakers, a backdrop to set the scenario of use, etc) to quickly convey the merits of your design to passersby!

Documentation We will be posting documentation of the projects on pressplay.pbworks.com. You should set up your own page, and need, at a minimum, to post your design point of view (what are you designing a player *for*?), your Verplank diagram, photos of your paper prototype, your state diagram, your project code, and a video of the final working player in use. Present your project so that another (future) student could rebuild it from your documentation.

Evaluation Evaluation on this project will be based in equal measure on assessment of:

- Your design (*Was it a good plan?*),
- Its execution (*Did you do a good job building what you intended?*),
- Its fit to your point of view (*Does it fulfill the intended purpose well?*),
- Your process (*Did you allocate your time and resources well?*) and
- Your documentation (*Can someone learn how to do what you did?*)