



ME 1770 Team Project Proposal

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PROJECT TITLE : NCC-U.S.S. Enterprise (Star Trek)			Sarah Alsmiller	salsmiller3@gatech.edu
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NUMBER OF COMPONENTS: 60				

Description of Project:

Through the application of 2D and 3D CAD software, our team has chosen the NCC-U.S.S Enterprise, as featured in numerous Star Trek episodes, as the model for our team project. The immensity of details, geometric complexity, and internal components will be difficult to accomplish but will result in the making of an iconic model of Star Trek culture.

Description of Geometric Features

- **Main Deck:** (Tiffany Liu)

This is the head of the ship. It has a disk-like form with a compartment on top (The Bridge) and compartment on bottom. Modeling the shape will be a complex tasks as well as it the most defining part of the ship.

- **Rear Warp Engines:** (Sarah Alsmiller)

These are two cylindrical engines that are attached to the Main Hull. There are half-sphere attachments to the front with the engines in the back. Most of the design work will be the warp coils that are housed internally within these engines. Part of the coils will be exposed at the rear of these structures. There will be two warp engines located at the rear; both of them will be identical.

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- **Main Hull:** (Kristen Hansen)

This is the center of the ship that provides as a basis for connecting the surrounding structures of the star ship. It is also cylindrical in shape and will have wing-like attachments to the warp engines and main deck.

- **The Bridge:** (Risa Sakurai)

This is the control room for the space ship and will feature the layout of the controls for the space ship as well as the captain's chair. This room may even feature Star Trek characters (perhaps Mr. Spock?).

Any Moving parts?– what is Modeling , Assembly Complexity:

The process of modeling the Enterprise will be divided into the following assembly components: the main deck, the rear warp engines, the main hull, and the bridge. The majority of the features will be stationary while the rear engines are primarily responsible for the horizontal displacement of the ship. The coils in the back of these engines will spin and will be partially visible as the star ship travels at warp speed.

These components will be modeled individually and then assembled through use of 3D CAD software. The bridge will be housed internally within the main deck and will be viewed within the span of the animation tour of the project.

Pictures of the Proposed System (or Similar System):



Image Citation:

- (1) <http://willvoy.deviantart.com/art/USS-ENTERPRISE-A-91579490>
- (2) <http://en.memory-alpha.org/wiki/Bridge>