



Senior Design Project Proposal

3 Rivers Festival Race Raft

Background

The City of Fort Wayne has annual 3 Rivers festival. In 1970, a raft race was introduced. The race is along the Saint Mary's river, with a completion for both theme and speed. The main limitation for the raft is that it must be human powered. This can be by oar or propeller. An example of a speed raft from the festival can be seen below in figure 1.



Figure 1: Speed Raft Example from the 3 Rivers Festival, taken from festival website

Project Scope

The City of Fort Wayne Utilities Department desires a raft to be built for completion into the 2018 3 Rivers Festival Raft Race. The raft must be designed to hold 3-6 people and be a contender for the fastest raft. The raft must be stable, steerable, and powered by its riders. The method of accomplishing this is up to the design team, but design process optimization must be shown. The boat and riders must comply with rules set forth by the festival when they are presented. The City will work with the team to expand upon details and requirements of design, with the main focus being on the power transmission/drive train assembly.

Project Budget

A budget of \$2500 is allocated for the purchase of materials to support the project.