The Trailer
The MMC began with a few base components at its expenditure, one of which being the opportunity to use a trailer from a previous project. The Biodiesel Project (in the Energy Group) had a Haulmark® 6ft x 12ft auto trailer that had been in disuse for multiple years. After much deliberation and calculation pertaining to the dimensions of the trailer and the ability to fit all necessary components of the clinic into it, the team accepted the offer. The tight space proves to be a slight hindrance, but obtaining a trailer for free greatly improved the project’s initial budget.

To prepare the trailer for unpaved roads some improvements were made to the floor and suspension system. The interior wiring is being completed before the project can move on to receiving our new suspension system, we removed our old suspension and prepared the trailer to have it done before the end of the semester. We planned to replace the suspension, install a new floor, and acquire a medical table. Soon after receiving our new suspension system, we removed the old suspension and prepared the trailer to have the new one welded in. The new suspension allows the trailer to travel on rough terrain with fewer disturbances to the interior components. After installing the new suspension, we coated the bottom of our floor with epoxy to protect it from debris. After this we screwed our floor into the frame and applied rubber tiles for sanitary purposes. During this semester we were also able to acquire a medical table that had stirrups and a waterproof wall for the interior wiring and plan to have it done before the end of the semester.

Who We Are
The Mobile Medical Clinic is one of four projects in the IPC Transportation Group and began in the Fall semester of 2013. The project is currently composed of four members: three Project II members and one Project IV member. The MMC project works with Dala Development, explained at lower left.

Why a Mobile Medical Clinic?
There is an immediate need for medical services in rural areas of Africa. The continent is particularly experiencing an immense increase in cancer cases. Specifically in rural Kenya, cancer information, screening, and treatment services are lacking. Currently, cancer ranks third among the main causes of death in Kenya, after infectious and cardiovascular diseases. The Nairobi Cancer Registry and GLOBOCAN both list breast cancer and cervical cancer as the top two types in Kenya based on incident and mortality rates.²

Any treatment outside of major population centers is greatly hindered by the “deficiency of resources, infrastructure, and trained personnel; the entire lack of, or prohibitive cost of chemotherapy drugs; and the advanced stage of the majority of cancers at the time of presentation.”² The Mobile Medical Clinic project aims to assist with resources and infrastructure, as well as dealing with the ever-important latter notion that if patients were tested and screened more frequently and thoroughly, their cancer could be discovered at an earlier, more treatable stage. Our clinic will equip Dala’s medical teams with a place to perform cancer screenings in the field, bringing the clinic to the village, thus reaching more people.

Current Work
The MMC project’s first course of action this year was gathering components to improve our trailer. We planned to replace the suspension, install a new floor, and acquire a medical table. Soon after receiving our new suspension system, we removed our old suspension and prepared the trailer to have the new one welded in. The new suspension allows the trailer to travel on rough terrain with fewer disturbances to the interior components. After installing the new suspension we focused on the floor, deciding to coat the bottom of our floor with epoxy to protect it from debris. After this we screwed our floor into the frame and applied rubber tiles for sanitary purposes. During this semester we were also able to acquire a medical table that had stirrups and built in storage. As of right now we are working on the interior wiring and plan to have it done before the end of the semester.

Future Work
Now that the floor of the trailer has been finished, work on the interior can begin. The first step of this is laying wire for the lights and electrical system. Before we can finish the waterproof walls of the interior we need to place all of the wiring that will be required. Once all of the interior has been finished and the components have been installed, final touches will be added to the exterior before project completion and an instructional manual will be written to assist our client. Our goal is to have the trailer finished by May 2016, at which point it will be shipped to our client in Kenya.

Further Information / Reference List
You can learn more and stay updated on the progress of the Mobile Medical Clinic by checking its page on the Collaboratory Wiki, at: http://www.thecollaboratoryonline.org/wiki/Mobile_Medical_Clinic
Learn more about Dala Development’s work and medical conditions in Kenya at:
http://www.daladevelopment.org/preventive-health.html

Reference List

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