

Title: Drainage Valve for Body Fluids for use by Paralyzed Individuals

Team Members:

Angela Heppner
Shannon Kane
Jeff Phillips
Sarah Schram

Client:

Dan Egan

Date: 2/28/101-5/05/01

Problem Statement : In order to better suit the needs of individuals that are paralyzed, handicap, or make use of a wheelchair on a daily basis, our goal is to design a waste fluid drainage system for the well-controlled, accurate and dependable disposal of stored liquid wastes. The device must incorporate a secure valve system that stops the flow of urine that is stored in a 1000 cubic centimeter bag attached to the client's leg. The opening and closing of the valve must operate solely at the discretion of the user, without failure in any conditions, via a switch located within accessibility of the client. The urine that passes through the tubes or the device must not sediment over time, and the valve must remain unobtrusive throughout the life of the device.

The main goal of the project is to construct the valve so that a 1000 cubic centimeter fluid bag is able to drain as quickly as possible upon opening of the valve. We hold comfort, ease of use and safety of the client as paramount aspects of the device, while offering the product at a reasonable cost to the customer.

Restatement of Team Goals:

- 1) Finish paper and presentation
- 2) Do more research so that we can decide which of our designs to focus on

Summary of Accomplishments:

- 1) Paper completed and presentation given

Statement of Team Goals:

- 1) Continue research
- 2) Decide which of our designs to continue with

- 3) Meet with Dan to discuss our ideas

Project Schedule:

Week 1: Choose Project and Obtain Contact Information

Week 2: Meet with Client and Redefine problem

Week 3: Start PDS and Continue Refining Throughout Semester

Week 4: Background Research

Week 5: Brainstorm, continue Background Research, and begin Midsemester Paper and Presentation

Week 6: Finish and Give Midsemester Presentation while continuing to Brainstorm and Research

Difficulties:

- 1) Finding meeting times
- 2) We have many design alternatives that we feel are promising and are having difficulty selecting just one or two to focus on

Activities:

- 1) Met as a team to complete paper and presentation~ 3 hours
- 2) Met as team in class on Friday to give presentation ~ 2.0 hours
- 3) Sarah wrote progress report ~ 0.25 hours

Running Total ~ 44 hours