

Senior Design Project 12317 – Nanomanipulator

Minutes from meeting held on 1/11/12

Present:

Brad Ling
Rob Hughes
Sabine Loebner
Brad Olan
Jaclyn Bastardi

Meeting ran from 4-6:15 PM in Senior Design Lab

1. To start the meeting Rob presented two new concepts.
 - a. Piezo Electric Actuator
 - Would cut down on lag and difficulty experienced with hydraulics
 - would require a large amount of electronics
 - need an amplifier
 - close loop control
 - b. Servo Valves
 - instead of spring a three way valve
 - possibly one actuator and one servo for 3 axis
 - possibly one for each axis
 - Companies: Moog/Lee
2. The House of Quality was the next topic discussed. We determined that we needed to refine our specs to better correlate to our customer needs. After some discussion we concluded that the HOQ should be divided into System Design and Component Design by eliminating ease of use, software, and visual sampling rate from our current model.
3. The last hour of the meeting was spent selecting the best options from our brainstormed concepts. Brad L created a morph chart that was great for mapping out the concepts. After going through a PUGH chart to determine the best ones we narrowed selections to the following. These are of course subject to change.

