Accessible Incontinence Control Device
February 13, 2008 (Week 4)

GROUP 8
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Sponsored by RERC
AMI National Student Design Competition

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Summary

Design Overview
Work Completed
Project Review
Future Work
Completed Work – CuTouch & Cubloc

• Began programming CuTouch-Basic
• Generated some code for implantable microprocessor
• Read the manuals for electronics
Completed Work: CuTouch & Cubloc-Volume Percentage
Completed Work: CuTouch & Cubloc-Bladder Control
Completed Work: Artificial Sphincter

• NDA consent form mailed to Dr. Enderle
Completed Work: Status Indication

- STRX-04 arrived and was tested
- 4 inches initial length
- Resistance measured for various lengths stretched

It is known that the distance between the two urethras stretches from 2.5 cm to 5 cm when the bladder fills.
Work Completed: Micro Pump

- Pumps primes and set up to run
- Ideal operating voltage for design 3.3 V~250 ml/min
- Reversing voltage does not reverse direction of pump
Completed Work-Micro Pump In Series
Project Review

• Made significant progress in the actual programming and building of the design as compared to last week
• Major blocks to forward progress are setting up the wireless and receiving the artificial sphincter
Future Work

• **Bladder Status Indication**
  • Test set up once the urine bag comes in
  • Be able to figure out what resistance corresponds to amount of fluid in the bladder

• **Micro Pump**
  • Connect both pumps in series to obtain flow in both forward and reverse direction with modified artificial sphincter

• **Microprocessor**
  • Set up wireless communication and finish writing code for implant and CuTouch
# Future Work: Timeline

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<tr>
<th>ID</th>
<th>Task Name</th>
<th>Duration</th>
<th>Start</th>
<th>Finish</th>
<th>Predecessors</th>
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<td>Wed 2/1</td>
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Hours Worked

• Zack
  • 15 hours worked this past week reading the CuTouch Manual, and programming the LCD screen for the microprocessor

• Yamalia
  • 13 hours worked this past week including reading the CuTouch manual, contacting the TMS company regarding micropump and continuous research regarding the micropump set up

• Erica
  • 13 hours were worked this past week reading the CuBLOC manual and writing codes