

**Title:** Device for acute rehabilitation of the paretic hand after stroke

**Team:** Sasha Cai Leshner-Pérez (Leader)  
Carly Brown (Communicator)  
Lee Linstroth (BSAC)  
Nathan Kleinhans (BWIG)

**Date:** September 7 – September 13 2007

**Project Design Statement:**

Design a portable automated device that will facilitate hand rehabilitation in the acute phase (first three months) after stroke within a clinical setting; focus of rehabilitation will be supination/pronation movements of the wrist and gross flexion/extension of the fingers. Both active and passive movements will be focused on for rehabilitation, and the device should be able to simultaneously or independently assist rehabilitation of the two degrees of motion.

**Restatement of Team Goals:**

- Begin work with IRB
- Continue learning C++ programming software (Sasha Cai)
- Think of design options for simultaneous movement (flex/ext and sup/pro) (Nathan, Lee, Sasha Cai)
- Localize materials for bladder option
- Contact client, meet with client

**Individual Goals:**

- **Carly:** Work on IRB protocol, communicate what needs to be worked on for completion of IRB
- **Lee:** Find bladders, and air pumps that will allow opening/closing motions
- **Nathan:** Find bladders, and air pumps that will allow opening/closing motions, make small modifications to wrist rotator necessary for device improvement
- **Sasha Cai:** Work on C++ programming, attempt interface between h-bridge, microprocessor and motor

**Summary of Accomplishments:**

- 1) Organized member goals and projects for short-term work and semester

**Difficulties:**

None

**Activities:**

**Team Meeting: 09/11/07**

**2 hour**