

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: October 5 – October 11, 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:

- Work on IRB protocol (Carly)
- Receive citi human training
- Continue learning C++ programming software (Sasha Cai)
- Think of design options for simultaneous movement (flex/ext and sup/pro) (Nathan, Lee, Sasha Cai)
- Run tests on motor (Lee, Nathan, Sasha Cai)

Individual Goals:

- **Carly:** Finalize IRB protocol, finish citi human training, communicate what needs to be worked on for completion of IRB
- **Lee:** Finalize IRB protocol, finish citi human training, create modeling designs of Hand flexion/extension device, purchase plastic for hand flexion/extension device
- **Nathan:** Finalize IRB protocol, finish citi human training, create modeling designs of hand flexion extension device, purchase plastic for hand flexion/extension device
- **Sasha Cai:** Finalize IRB protocol, finish citi human training, Work on C++ programming, microprocessor and motor

Summary of Accomplishments:

- 1) Everyone finished citi training
- 2) Purchased a connection device for microprocessor
- 3) Finalized IRB protocol for submission to client
- 4) Purchased materials for hand flexion/extension device

Difficulties:

None

Activities:

Meeting with Advisor:	10/05/07	0.5 hours
Team Meeting:	10/08/07	2 hours