

# Capstone II Final Demo Schedule

Thursday April 23

Team	Advisor	Place	Time
8	Alvarez	Fenster	2:30pm
9	Nunez	Fenster	3:00pm
1	Lee	Fenster	3:30pm
14	Grasman	Chen	4:00pm
11	Nanda/Kallioniemi	Dr. K	4:30pm
4	Collins/Kayaalp	CKB 218	5:00pm

Monday April 27

Team	Advisor	Project	Time
7	Lee	FMH 206	2:30pm
3	Crombie	Fenster	3:00pm
13	Crombie	Fenster	3:30pm
5	Collins/Nemr	Fenster	4:00pm
10	Zhou	Fenster	4:30pm
15	Son	Fenster	5:00pm

Friday May 1

Team	Advisor	Place	Time
6	Prias	Fenster	1:00pm
12	Son	Fenster	1:30pm
2	Pfister	Fenster	2:00pm

## **Capstone II Demo Guidelines**

Prepare an agenda (see attached) for the demo showing what will be presented and by whom.

- a. The demo should illustrate the basic functionality of the product and can be based on test case(s) from your test plan.
- b. The demo should be less than 20 min.

# THE NANOFIBER COLLECTOR

## Demonstration Agenda

Presented by  
Gutenberg Ahimon, Jiogy Grundy, Khadidiatou Guiro, Anna Lai, Duc Tran

### Guideline to the Nanofiber Collector in Electrospinning

#### I Introduction (Gutenberg)

- i) Brief description of The Nanofiber Collector.

#### II Solution Preparation (Anna)

- i) Selection of polymers.
- ii) Creating a polymer solution.

#### III Syringe Pump Interface/Motor speed controller (Khady)

- i) Functions available.
- ii) Setting pump rate.
- iii) Setting motor speed.

#### IV Assembly/Connecting The Nanofiber Collector (Duc)

- i) Illustrate proper assembly.
- ii) Illustrate proper connections.

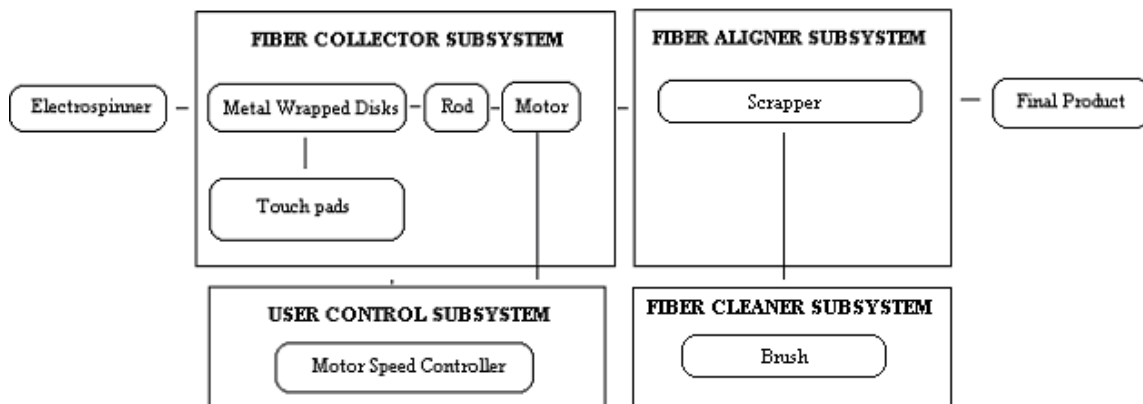
#### V High Level Requirements/Electrospinning process (Jiogy)

- i) Description of HLRs met.
- ii) Description of the electrospinning process while spinning.

#### VI Testing/Improvements (Khady)

- i) Description of tests/results.
- ii) Aspects that need improvements.

### System Architecture of The Nanofiber Collector



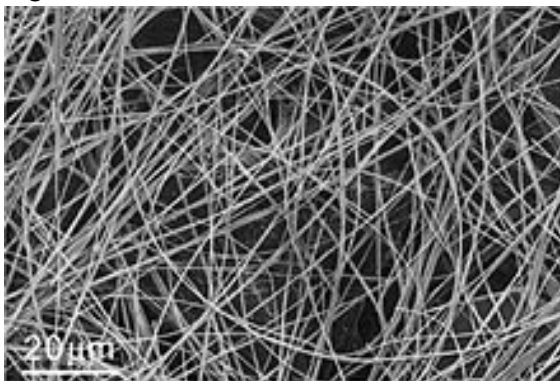
### **Initial Test Results Illustration**

Figures A and B show Scanning Electron Microscopy images of electrospun fibers.

Figure A shows that the fiber alignment of a typical scaffold is in every direction. No regular pattern exists.

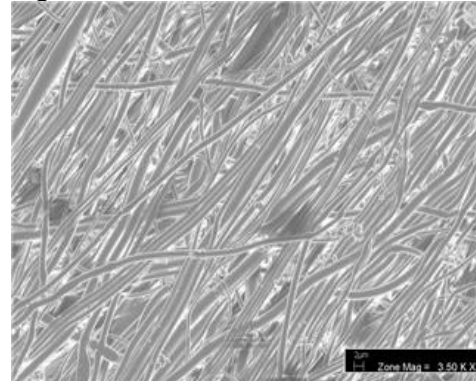
Figure B shows our first test results. The fibers here show a much greater alignment from lower left to upper right than the typical scaffold in Figure A.

Figure A.



SEM Image of Meshed Nanofibers

Figure B.



SEM Image of our 1<sup>st</sup> Test Results