**09/14:**

Completed:

* Met at 2:30, Justin did not attend due to previous engagements
* Discussed scheduling between faculty and external advisors, contacted advisors for changes in meeting times
* Began preliminary work on the Needs Analysis and Requirements Specification: Finished the overview of design team

To do:

* Contact Justin about his assigned responsibilities for the NARS
* Schedule presentation date for Milestone 1

**09/21:**

Completed:

* Discussed work distribution of Friday’s (09/26) presentation:
	+ Section 1: Everybody – Send professional picture to Seve
	+ Section 2: Seve
	+ Section 3: Jacob, Justin
	+ Section 4: Bryan, Bilal
	+ Section 5: Bilal?

To do:

* Contact Fabio Vargas for schematics and any other useful info
* Seve will compile Powerpoint presentation (needs to be submitted by 10am Thursday)

**09/23:**

Completed

* Weekly meeting with Dr. Frank
	+ Discussed NARS report. Overall good feedback, didn’t like “attractable”
	+ Gave cautions against using induction for charging, power efficiency a concern
	+ Add a reflector behind plate to direct as much of the magnetic field to the charging plate as possible

**10/05:**

Preliminary discussion of Milestone 2

Go into specifics:

* What was considered
* What was chosen
* How we will implement it

Worked on concept generation:

     Bike could roll in forward and be leaned into station

Found enamel-coated wire that could work for induction coil: [http://www.amazon.com/Magnet-Enameled-Copper-Length-Diameter/dp/B00BJMVMQE/ref=sr\_1\_1?ie=UTF8&qid=1413765798&sr=8-1&keywords=magnet+wire+22](http://www.amazon.com/Magnet-Enameled-Copper-Length-Diameter/dp/B00BJMVMQE/ref%3Dsr_1_1?ie=UTF8&qid=1413765798&sr=8-1&keywords=magnet+wire+22)

**10/12:**

inductance plates:
        Control has 2 components: bike-side controller (1 per bike), single station-side controller

        Bike-side to have wireless communication to station-side controller

                Sends status on bike ID, charged/uncharged, electrical current received

        Station-side takes information and controls locking mechanism, sending current

Bike will be backed into V-guide which leads into track

        Frame over back wheel to position bike properly

    IR sensor to detect position of back wheel

    Bike-side controller will detect current for second positioning check

    Lock will engage after both positioning checks are successful

**Task Distribution of Milestone 2**

Seve:

     Section 1

Section 2\*

Section 4\*

Section 4.1

Section 6\*

Section 9

Jacob:

Section 2\*

Section 3\*

Section 4\*

Section 4.4

Section 6\*

Section 5
Bryan:

Section 3\*

Section 4\*

Section 6\*

    Section 7\*

    Section 8

Bilal:

    Section 2\*

Section 3\*

Section 4\*

Section 6\*

Justin:

Section 3\*

Section 4\*

Section 6\*

    Section 7\*

\*Collaborative Section

**10/19:**

Bilal was not able to attend the meeting

Discussed task distribution for Presentation 2:

* Seve: Introduction
* Jacob and Bilal: Sections 2 and 3 (Combine them: Do concept generation and then selection immediately after; all ME parts first, then all ECE parts second)
* Seve and Justin: Section 4
* Bryan:  Sections 5, 7 and 8
* Bilal: Section 9 (brief conclusion)

**01/09 Meeting Minutes**

Jacob to work on induction coils

Seve to develop more pseudocode for microcontrollers

Bryan to order the rest of the needed components

**01/15 Meeting Minutes**

Schedule meeting with Frank:

 Tentative – 12:30pm Wednesday

Meeting with Fabio:

 Sent email, tentatively next weekend

Meeting with Hellstrom:

 Setup later

**01/25 Meeting Minutes**

Divided up the milestone report

Exec Summary

 1 Intro Seve

 2 System Design 2.1 Billy & Seve

 2.2 Jacob

 2.3 Jacob

 2.4 Bryan

 2.5 Justin, Bryan, Seve

 2.6 Bryan

 3 Design of Maj Comp EVERYONE

 4 Test plan EVERYONE

 5 Schedule Bryan

 6 Budget Estimate Bryan

 7 Conclusion Seve

Discussed final design changes

Started experimenting with the coils

**02/02 Meeting Minutes**

Ideas:

 Use cut plastic sheet and magnet as "washers" to spool the wire on the core.

 Problems:

 Can't get large enough magnet soon enough

 magnet may make winding of the wire more difficult

 Use two plastic sheets with clamps to hold them in place.

 Problems:

 Plastic may be too bendable

Need to glue the bike-side coil because it won't be wrapped around a core

Bsat = 1.2T

A = 0.00064516

$Φ=B\_{sat}×A$ = 0.000774192

$n= \frac{V}{2f×Φ} ×89\%$ = 1053 turns (primary side)