I. Team Charter

1. Roster

a. Faculty-T.J. McLeish

b. Dmitry Barsky

c. Eugen Dragomir-Daescu

d. Bojana Martinich

e. Dorcas A. Boykin

f. Ayesha Akhtar

g. Tadeusz J Bobak

h. Jocsan Martinez

i. Se Yen Lai

j. Eric Cheng

k. Lorenzo Perez

l. Garrett Berg

m. Michelle Trudo

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2. Team Member Strengths, Needs, and Expectations

a. Individual Strengths to Contribute

- i. Jocsan Martinez: Has experience working with high school students and is an experienced technical (engineering) problem-solver.
- ii. Dmitry Barsky: Proficient at most Adobe products and has a strong graphic design background as well as good familiarity with many IT concepts.
- iii. Ayesha Akhtar: Skilled in illustrating ideas through drawings and models. Also experienced in dealing with and educating high school students; and in presenting ideas to an audience.
- iv. Tadeusz J Bobak: Experienced in project management as well as programming (C++ and JAVA)
- v. Se Yen Lai: Good in AutoCAD and able to communicate well with others / public speaking if necessary.
- vi. Eric Cheng: good in illlustrating data and analysis through graphs, diagrams; skilled in creating presentations.

b. New Knowledge/Skills to Develop

- i. Tadeusz J Bobak: Working with children as well as learning scratch.
- ii. Dmitry Barsky: Using scratch in combination with existing adobe software to create a rich interactive experience that can traverse different mediums to engage and educate an audience.
- iii. Jocsan Martinez: Gaining experience in problem-solving in a non-technical way.
- iv. Ayesha Akhtar: Team work and working together with people from different academic and professional backgrounds.
- v. Lorenzo Perez: Building a strong friendship and workflow with fellow IPRO team members.

c. Overall Expectation about the Project

i. T.J. McLeish: Invent a remarkable experience which will communicate something powerful to the community.

- ii. Dmitry Barsky: Creating some sort of prototype that can provide a springboard to creating an interactive experience; shifting focus from a «memorial» to an experience.
- iii. Dorcas A. Boykin: Making certain that to learn as much as possible about creating interactive tools, creating programs for children, how to connect and capture the events of Martin Luther King and intergrate them into the project.

4. Team Purpose (team vision and mission)

The main purpose for IPRO 314 is to plan, develop, and construct a memorial to Dr. Martin Luther King's efforts in obtaining affordable housing in the Gage Park neighborhood. This IPRO was brought forth through the efforts of students from Gage Park High School's Civics class, and is in its first stages of development. This semester we would like concentrate on using a tool called Scratch with the Gage Park students in order to allow them to directly create the beginnings of an interactive experience that can excite them and their peers and become the basis for a memorial.

5. Team Values (behaviors that support the achievement of outcomes in team purpose statement)

- a. Everyone's input counts!
- b. Respecting everyone's background and their opinions.
- c. Being open to discussing what's important to you (each individual member of the team) and compromising when necessary through productive conflict resolution

6. Team Objectives

- a. The objective of this IPRO is to help the students of Gage Park H.S. bring their vision of a memorial to a historical event into existence; and to further advance the concepts and ideas developed by the previous two IPRO groups.

 Objectives:
 - i. Keep student ideas and concerns prevalent in design process
 - ii. Develop initial prototypes of memorial designs after reconnecting with the Gage Park students
 - iii. Receive feedback from students on prototype ideas
 - iv. Upon student approval, develop a proposed final design
 - v. Work with school and city officials to determine a place for the memorial
 - vi. Work with involved parties to bring the memorial to completion

II. Project Methodology

1. Background

- a. Sponsor: Gage Park High School
- b. The students recently learned about a civil rights march that occurred in their neighborhood, and they were distraught at the lack of a commemorative piece for the event. The students want to help design and construct some type of memorial to the event.

- c. Possible sciences involved in this project would include various forms of user interaction, such as informational kiosks, cell phone interaction, digitally guided tours of the memorial, GPS guided tour systems, and physical sciences related to the actual construction of the memorial.
- d. Through the city of Boston, a path commemorates the ride Paul Revere took when warning about the British. The path itself tells about historical places and events leading up to the ride he took, and it seems pretty successful. The success from something like this comes from the fact that there are few devices that are left out to be tampered with or vandalized. The downfall is that to be able to fully appreciate the memorial, one needs to check out a device from a given point.
- e. The memorial, from the point of the students, should be about the civil rights movement Dr. King lead in their neighborhood. This being said, there are other sides of the story, such as why the march took place, the opposition to it, and why. Commemorating such a march with a memorial should tell all sides of a story as to present a clear, bigger picture.
- f. The previous two IPRO groups have been working closely with the Gage Park High School students. They have helped the students develop a better more broad understanding of the concept of a memorial. They have conducted field trips and workshops with the students in order to introduce them to effective means of communication, basic design skills and the latest interactive models present today.

2. Milestones

- a. Meet with Gage Park H.S. students and determine the key concepts and ideas important to them to include in the prototype designs
- b. Help students develop basic design skills so that they can communicate effectively.
- c. Develop the prototype designs of the memorial and present them to the Gage Park students
- d. Use the Gage Park student's feedback to finalize a design concept

3. Structure

The fall 2010 IPRO team has been organized in a nontraditional manner. There is no concrete structure of designated tasks; team members decide which tasks interest them, and volunteer to do them. For example, a different person will volunteer to take class notes, depending on who would run the class's meeting. Another will keep track of tasks that needed to be accomplished, and before class ends, team members who can easily do a task will volunteer.

4. Expected Results

The first main result we expect to refresh the returning IPRO students as well as the new IPRO students memory on what the high school students envision for their memorial. After gaining information and aligning our vision with theirs, we can start designing several prototypes. As the project develops, the students will be kept informed of our progress, and consulted when the prototypes are ready.

a. Solutions are expected through a series brainstorming sessions, discussion, and research and testing.

b. Potential products that would come about from our IPRO would include devices that inform the community through an interactive environment of a historical event that occurred, a memorial/monument to the event, or some unforseen creation that develops between us (IPRO students) and the clients (Gage Park H.S. students).

\$1400.00

5. Budget

Item Travel expenses and Transportation	Cost
- Gage Park H.S (TBA)	200.00
Travel subtotal	200.00
Food for meetings with students	
- Introduction meeting (TBA)	150.00
- Follow up meetings (TBA)	150.00
- Finalization meetings (TBA)	150.00
Food Subtotal	450.00
Prototyping	
- Materials	500.00
- Machine Shop time	TBD
Prototyping subtotal	TBD
Other	
Misc(TBD)	50.00

8. Designation of Roles

Total

Roles will rotate on an as needed basis.