smithra@mit.edu **Rebecca A. Smith** (518) 542-3627

EDUCATION

Massachusetts Institute of Technology, Cambridge, MA *September 2005 – June 2009*
Bachelor of Science in Mechanical Engineering
- Relevant Coursework: Product Design and Development, Design and Manufacturing II, Product Engineering Processes, D-Lab: Development, D-Lab: Design, Toy Product Development, Mechanics and Materials II, Dynamics and Controls II, Thermal-Fluids Engineering II, Listening to the Consumer, Marketing.
- Cumulative GPA*: 4.3/5.0*

EXPERIENCE

Innovations for Poverty Action – Busia, Kenya *October 2009 – present*
Engineering/Design Consultant – Rural Water Project
- Finalizing design of point-of-collection chlorine dispenser for scale-up efforts. Continuing work started in MIT class D-Lab: Design, when dispenser was redesigned to decrease cost of system from $100 to $30.
- Creating prototypes, designing experiments, conducting field research and talking to users. Utilizing feedback and results to improve dispenser design for increased robustness and simple user interface.

Aquaport – Cambridge, MA *February 2009 – present*
- Designing, prototyping and testing modular water transport system for use in rural areas in Africa.
- Created for MIT graduate class Product Design and Development on a team of MIT, Sloan and RISD students.
- Winner of 2009 MIT IDEAS Competition Award. Traveling to Africa in early 2010 for testing.

D-Lab: Development – Tanzania, Africa *January 2009*
- Spent three weeks in Tanzania with MIT team, working with community partners in Arusha, Moshi and Karatu.
- Worked with Appropriate Technology group at local vocational school to produce first field prototype of Full Belly Project water pump, perform testing, and recommend future design changes. Returning Fall 2009.

Product Engineering Processes – MIT Mechanical Engineering Department *September 2008 – December 2008*
System Lead - User Interface Team
- Designed and developed alpha prototype of "thermoSmart," a novel home heating product, on team of 17 Mechanical Engineering seniors.
- Designed version 1.0 and 2.0 3D-printed enclosures for three components of varying sizes and functions.
- Designed and produced thermoSmart packaging boxes and instruction manual using Adobe software.

Undergraduate Research Opportunities Program – MIT Media Lab *May 2008 – December 2008*
Biomechatronics Group – Mechanical Design Researcher
- Designed, built, tested, and improved walking and running leg and foot prosthetic devices for amputees.
- Designed new artificial gastrocnemius prosthesis: used SolidWorks, machined assembly with CNC mill.

Toy Product Development – MIT Public Service Design Seminar *Spring 2006, 2007, 2008, 2009*
Design Team Member; Mentor

SKILLS

Computer: SolidWorks, Matlab, Mastercam, MathCAD, OMAX Layout. Mac OSX, Windows. Adobe Illustrator, Photoshop, InDesign.
Machining: CNC Mill, Waterjet, Laser Cutter, Lathe, Thermoform Machine, Injection Molding Machine.
Languages: Beginner French, Beginner Spanish, Beginner Swahili.

ACTIVITIES/ LEADERSHIP

Baker House Dormitory – MIT, Cambridge, MA *November 2006 – August 2009*
Senior Rooming Chair; Desk Captain

Women's Initiative – MIT, Cambridge, MA; Miami, FL; Hawaii *October 2006 – May 2009*
Director - Presenter Recruitment & Training; Presenter

WMBR – Cambridge, MA *September 2006 – September 2009*
Radio DJ – Breakfast of Champions; WMBR Live! Concert Series Band Contact Person

SaveTFP – MIT, Cambridge, MA *April 2006 – May 2009*
President; Event Planner; Committee Representative

INTERESTS

International development, travel, music, concerts, reading, cooking & baking, jewelry making, interior decorating.