

Marc M. Graham, Ph.D.

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EDUCATION

Massachusetts Institute of Technology	B.S., M.E.	June 1995
Massachusetts Institute of Technology	S.M., M.E.	June 1997
Massachusetts Institute of Technology	Ph.D., M.E.: Teaching Product Development by Deterministic Design	June 2006

EMPLOYMENT

<i>Stryker Development, Senior Design Engineer</i>	<i>Cambridge, MA</i>	<i>October 2009 – Present</i>
<ul style="list-style-type: none">• Lead design and development of medical devices• Manage laboratories		
<i>EndoCore, LLC, Consultant</i>	<i>Morris Plains, NJ</i>	<i>April 2009 – Present</i>
<ul style="list-style-type: none">• Design and development of medical devices		
<i>TIAX, LLC, Associate Principal</i>	<i>Cambridge, MA</i>	<i>July 2009 – September 2009</i>
<ul style="list-style-type: none">• Develop green energy technologies for licensing to major corporations• Manage/Track development of technology platforms• Develop cost models for advanced battery technologies		
<i>TIAX, LLC, Senior Technologist/Sales Developer</i>	<i>Cambridge, MA</i>	<i>October 2008 – July 2009</i>
<ul style="list-style-type: none">• Manage/Track development of technology platforms• Develop prototyping center for Li-Ion batteries		
<i>Stryker Development, Consultant</i>	<i>Cambridge, MA</i>	<i>October 2008 – March 2009</i>
<ul style="list-style-type: none">• Development of endoscopic medical device		
<i>Stryker Development, Senior Design Engineer</i>	<i>Cambridge, MA</i>	<i>September 2006 – October 2008</i>
<ul style="list-style-type: none">• Lead design and development of medical devices• Evaluate emerging technologies for acquisition• Manage Mechanical Engineering laboratory		
<i>Goso, LLC, Co-Founder, Designer</i>	<i>Amherst, NH</i>	<i>December 2005 – August 2007</i>
<ul style="list-style-type: none">• Co-founded sports equipment company and led design of machine to rehabilitate knees after total replacement surgery and/or injury		
<i>M.I.T., Head Instructor</i>	<i>Cambridge, MA</i>	<i>January 1995 – Present</i>
<ul style="list-style-type: none">• Plan curriculum, budget and supplies, manage teaching assistants and instruct MIT special programs<ul style="list-style-type: none">➢ SEED Academy (web.mit.edu/seed) – Saturday Engineering Enrichment and Discovery➢ MITES (web.mit.edu/mites) – MIT Introduction To Engineering and Science➢ Project Interphase (web.mit.edu/ome/programs-services/interphase/index.html)➢ NASA RISE (web.mit.edu/newsoffice/2003/mites.html) – NASA Research In Science and Engineering➢ TEAMS – Technology and Engineering for the Advancement of Minority Students➢ Junior Achievement (ja.org)• Plan curriculum, budget and supplies, manage teaching assistants and instruct MIT courses<ul style="list-style-type: none">➢ Creative Deterministic Composition: Poetry in Progress, SP2H1➢ Introduction to Technical Communication➢ Second Summer Program, 2.971		
<i>GVD Corp., Mechanical Design Engineer (Contract)</i>	<i>Cambridge, MA</i>	<i>September 2005 – January 2006</i>
<ul style="list-style-type: none">• Developed designs and models of equipment for government contracts		
<i>M.I.T., Teaching Assistant, Supervisor</i>	<i>Cambridge, MA</i>	<i>January 1995 – May 2004</i>
<ul style="list-style-type: none">• Section instructor for MIT courses<ul style="list-style-type: none">➢ Second Summer Program, 2.971➢ Design and Manufacturing I, 2.007➢ Pathways to Peace, 2.993• Supervised UROP students – Undergraduate Research Opportunity Program (web.mit.edu/urop)		
<i>Lemelson-MIT, Writer</i>	<i>Cambridge, MA</i>	<i>April 2005 – March 2006</i>
<ul style="list-style-type: none">• Wrote invention development manual for Lemelson-MIT InvenTeams program		
<i>Corning, Inc., Mechanical Design Engineer</i>	<i>Wilmington, NC</i>	<i>November 1996 – December 2002</i>
<ul style="list-style-type: none">• Designed and implemented post deployment improvements on 3 key fiber optics production machines: Blank Laydown, Blank Consolidation, and Fiber Draw• Completed early stage design for laydown chamber of next generation continuous fiber-making tower		
<i>GM, Mechanical Testing Engineer Intern</i>	<i>Mesa, AZ</i>	<i>May 1994 – August 1994</i>
<ul style="list-style-type: none">• Prepared F&Y cars (Camero, Firebird, Corvette) for thermal testing		

- Aged cars on track at desert proving ground

TRW, Mechanical Engineer Summer Intern

Cleveland, OH

June 1992 – August 1993

- Developed machine locking device to increase productivity by deterring workers from tampering with equipment
- Updated mechanical and electrical drawings to reflect equipment design changes and organized plant information database

LANGUAGES

English, Spanish, French

US PATENTS PENDING

M. Graham, R. Gelo, A. Slocum: Moving Seat Chair for Exercise and Rehabilitation

M. Graham, Gastrotomy Closure Device

M. Graham, Pyloric Valve

B. Grau, M. Graham, S. Anne, G. McGee, M. Jeffrey, Pyloric Valve Devices and Methods

A. Priplata, M. Graham, J. Errico, J. Raffle, Systems and Methods for Treating Obesity

BOOKS

Journey of The Lost Souls, ©2004, Graham, M.M.; *Lemelson-MIT Invention Development Process*, Graham, M.M., Schuler, J.; *Creative Deterministic Composition: Poetry in Progress*, being edited, Graham, M.M.

ARTICLES

Graham, M. M., Slocum, A. H., Moreno-Sanchez, R. “Teaching High School Seniors And College Freshmen Product Development By Deterministic Design With PREP”, Journal of Mechanical Design, May 2007

Graham, M. M., Slocum, A. H. “Inventive Ideas through Teamwork” Lemelson-MIT Inventory Newsletter, Volume #15, Winter 2006, pp 2-3, 9

CONFERENCES

June 2005, “Product Development By Deterministic Design” CDIO Annual Conference, Queen’s University, Kingston, ON; March 2005, “Product Design” National Society of Black Engineers (NSBE) National Conference, Boston, MA; June 2003, “Teaching Design With A Peer-Review Evaluation Process” Hawaii International Conference On Social Sciences, Honolulu, HI

INVITED LECTURES

March 2006, “Product Development By Deterministic Design” Universidad de Castilla-La Mancha, Ciudad Real, Spain; November 2005, “Invention Design Process” Lemelson-MIT InvenTeams Teachers Workshop, Cambridge, MA; April 2005, “Product Design” MIT Admissions Office, Cambridge, MA; November 2004, “Teaching Design With A Peer-Review Evaluation Process” Lemelson-MIT InvenTeams Teachers Workshop, Cambridge, MA; September 2004, “Journey of The Lost Souls”, lecture, MIT Course 21M.775 Hip-Hop, Cambridge, MA; August 2003, “Teaching Design With A Peer-Review Evaluation Process” Universidad de Antioquia, Medellin – Colombia; November 2003, “Teaching Design With A Peer-Review Evaluation Process” Lemelson-MIT InvenTeams Teachers Workshop, Cambridge, MA

ORGANIZATIONS

American Society of Mechanical Engineers; American Society for Engineering Education; MIT Black Students’ Union, Graduate Assistant; Untold Records, Inc., C.E.O. and Co-Founder; Chocolate City MIT, Graduate Residence Tutor; Corning Inc. Society of Black Professionals, Vice-President; Urban Design Corps, Co-Founder; MIT Black Musicians and Producers Organization, Co-Founder; MIT National Society of Black Engineers, Treasurer; Society of Black Mechanical Engineers, Vice-President; MIT Black Students' Union, Treasurer

AWARDS

1st Place, Alpha Delta Phi Mic-Check Prose and Poetry Competition (2-times); 1st Place MIT Unuseless Competition (Japanese art of chindogu); Chocolate City MIT “Man of The Year”; 1st Place, MIT Poetry Slam/Verse Reading Competition; MIT Council for the Arts Grant (2-times); GEM Fellow; Lemelson Fellow; Goodyear Tire and Rubber Company, Outstanding Work in Product Design and Manufacturing; 1st Place, MIT Toy Design Competition; 1st Place, New England College Conference Wrestling Association; MIT Varsity Wrestling, MVP; 1992-1994 Kirk Middle School, East Cleveland, OH, Annual "Marc Graham Award" given in honor

SKILLS

Fundamentals of Mechanical Engineering, Engineering Design, Precision Engineering, CAD, Pro-E, SolidWorks, Machining, Modeling, Maximizing Team Collaboration, Medical Device Design, Prototyping, Rapid Prototyping, Project Planning, Project Budgeting, Technical Writing

INTERESTS

Learning, Engineering, Design, Music/Poetry Writing/Recording, Billiards/Pool, Diving, Wrestling, Card Games