

Michael Browne

<http://brownem.engineer>

EXPERTISE

DEVICES

Instron • UTM • Flow Devices • DC PSU
Digital Multimeter • Signal Generator
Oscilloscope • FPGA • Arduino

COMPUTER AIDED DESIGN

M/ECAD:

SolidWorks 2015 • PTC Creo 2.0
AutoCAD 2014 • Fusion 360 • OnShape
MultiSim • SPICE-PSPICE

Data Collection & Simulation:

Matlab 2015 • SimuLink 2015
Working Model • EES • LabVIEW 2014
Misc Software
Microsoft Office • MS Visio • MS Project

PROGRAMMING

Languages:

C# • C++ • Python • Matlab 2015
VHDL • HTML5 • XML • R • LaTeX

Environments:

Visual Studio 2015 • Sublime Text 2.0

FABRICATION

Soldering • Rapid Prototyping
Precision Machining • Carpentry

EDUCATION

WENTWORTH INSTITUTE OF TECHNOLOGY

BACHELORS OF SCIENCE IN
ELECTROMECHANICAL ENGINEERING
Minor in Applied Mathematics
April 2015 | Boston, MA

COURSEWORK

Mechanical Statics • Dynamics
Material Science • Strength of Materials
Thermodynamics • Fluids
Heat Transfer • Thermal Design
Network Theory • Analog Circuit Design
Digital Systems • Signals & Systems
Motors & Controls • Feedback & Control
Machine Learning • Industrial Math
Electromechanical Systems

DESIGN COURSES

Fifth-year Design

Ultra-low-powered Robotic Exo-suit; legs

Thermal Design

Tesla Valvular Conduit; use in Pulsejet Engines

Junior Design

Self-Inflating Electro-Stimulation (SIES) Brace

ENGINEERING EXPERIENCE

RAYTHEON INTEGRATED DEFENSE SYSTEMS

| ELECTRICAL ENGINEER

June 2016 – Present | Andover, MA

- Trained in ITAR regulations
- Electrical work across multiple products and projects

BLUSHIFT AEROSPACE | ELECTROMECHANICAL ENGINEER

October 2015 – June 2016 | Boxborough, MA

- Mathematical and geometric design of a new aerospike rocket nozzle
- Designed test stand for the new nozzle and engine
- Designed solenoid interface and control circuits for oxidizer system

IROBOT | MECHANICAL ENGINEERING INTERN

April 2013 – December 2013 | Bedford, MA

- Tested and validated the 800-series Roomba and its prototypes
- Streamlined existing testing documentation, and developed new and improved test procedures
- Trained with ITAR & EAR standards and regulations

ENGINEERING PROJECTS

FIFTH-YEAR DESIGN | ELECTROMECHANICAL ENGINEERING

2014 - 2015, Wentworth Institute of Technology

Worked on a team, in a year-long capstone project, to develop a new kind of low-pressure, low-power hybrid system of electromagnets and hydraulics for use in exoskeleton robotic and bionic systems. Worked on designing and building the electromagnets for the system, and developing the control systems & equations.

LEADERSHIP

WENTWORTH INTERNET RADIO & ENTERTAINMENT (WIRE)

| TECHNOLOGY DIRECTOR

2011 – 2015 | Boston, MA

Led team that completely overhauled WIT's radio station including an award-winning website, new hardware, and software. Created and led Production team and Technology team. **Awards:** (i) IBS Best College Internet Radio Station, Finalist 2014. (ii) IBS Best College Radio Station Website, Winner 2014

GET THE LEAD OUT OF FISHING | PROJECT FOUNDER

2005 - 2010 | Massachusetts

National and international award-winning Boy Scout Eagle project. Helped pass Massachusetts law banning lead in fresh water fishing. **Awards:** (i) President's Environmental Youth Award (ii) The Gloria Barron Prize (iii) UN Environment Programme, Volvo Adventure Finalist

BOY SCOUTS OF AMERICA | ASSISTANT SCOUT MASTER

2002 - 2010 | Troop 5 Milton, Massachusetts

Joined Troop 5 at eleven years of age, achieved the rank of eagle when at 16, and chose to become an Assistant Scout Master with the troop after turning 18. **Awards:** (i) Eagle Scout (ii) Silver, Gold & Bronze Palms (iii) Medal of Merit (iv) Hornaday Award

SOCIETIES

2014 National

American Society of Mechanical Engineers (ASME)

2014 International

Institute of Electrical and Electronics Engineers (IEEE)