

# Developing Breakthrough Projects

## Memorandum of Agreement

***Note: Students will NOT be able to begin their work until this form is received by the TEC Curriculum Coordinator and final approval has been given.***

Project Site Placement Start Date August 24, 2015

Student Name John Forbes

UIN 999999999 Anticipated Graduation (Semester/Year) Spring/2017

Student Status in School (Current Year in School) Junior

U of I Email Address jforbes9987@illinois.edu Phone Number 217-999-8797

Home Department Electrical and Computer Engineering

Faculty Breakthrough Innovation Projects Supervisor Name Jane Jobs

Phone Number 217-333-0000 Email Address jjobs556789@illinois.edu

Day-to-Day Project Supervisor Name (if applicable) Theodore Wright

Phone Number 217-333-0001 Email Address twright001@illinois.edu

Project Name Beagle Bone Modem

**Brief Description of the Project** *(please attach additional pages if necessary):*

Writing real-time implementation of wireless modem for the Beagle Bone black at Company A. As a summer intern, I will work with the lead modem engineer (Theodore Wright) on this project.

**Scope and Content:** *Please list the scope, content, and skills to be obtained and/or sharpened during the Breakthrough Innovation Projects course.*

I will:

- Learn the agile development process for software engineering
- Learn to work in a team and clearly define requirements and verification tables for my part of the project
- Optimize modem code for real-time implementation to meet specific performance specifications
- Profile each major block within the code to determine critical loops and functions. Optimize these in C++ or Assembly to meet performance goals

**Deliverables from Student (ex: journal, research paper, poster/presentation):**

- Document all code and libraries developed
- Report all work completed, including milestone and schedules showing dates completed
- Requirements and verification table showing all met requirements and for each not met, an explanation of what went wrong.

**Which of the following leadership and/or innovative skills do you anticipate learning, building upon? (Must check at least 4 boxes). You will report on your progress towards these in your midterm and final papers/projects.**

- ☐ Financing
  - ☐ Fundraising
  - ☐ Bootstrapping
  - ☐ Grants
  - ☐ SBIR
  - ☐ Harvesting
  - ☐ Exit Strategies
- X Marketing
  - ☐ Marketing Plan
  - ☐ Competitive Strategy
  - ☐ Market Research
  - ☐ Talking to customers
  - ☐ Validating the idea
  - ☐ Prototyping
- ☐ Sales
  - ☐ Distribution
  - ☐ Sales process
  - ☐ Closing a deal
- ☐ Operations
  - ☐ Outsourcing
  - ☐ Manufacturing
  - ☐ Supply Chain
- X Business plan
- X Product Development
- X Opportunity creation and identification
- ☐ Structure of a business
  - ☐ Legal
  - ☐ Accounting
  - ☐ HR
  - ☐ Company formation
  - ☐ Building a team
- ☐ Negotiations
- ☐ Technology Management
- ☐ Business Management
- ☐ Project Management
- ☐ Intellectual Property

- ☐ Social Impact/Grand Challenges
- ☐ Intrapreneurship
- ☐ Agile Startup
- ☐ Lean Startup
- ☐ Ethics

**Agreed upon Meeting Schedule of Student and Faculty Supervisor (frequency):**

Meet weekly for 1 hour

**Credits and Evaluation:**

Start and end dates of experience: August 24 – December 15, 2015

How many hours/week or total hours will be spent: 15 hours/week

Number of credit hours for experience: 3 credit hours

Dates that deliverables due to Faculty Supervisor (*Copy also given to Brooke Newell*):

Midterm: October 25, 2015 Final: December 15, 2015

*I understand the expectations of my experience to be completed at the time and location noted on this agreement. The scope, content, and deliverables have been prepared in consultation with my experiential supervisor and project supervisor. I understand that the details of my experience and the deliverables may be used in publicity and recruiting by the Technology Entrepreneur Center and/or the College of Engineering.*

**Student Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

**Memorandum of Agreement Approvals:**

**Faculty Breakthrough Innovation Projects Supervisor Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

**Day to Day Project Supervisor Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

**\*Please send the MOA as a single .pdf file to Brooke Newell:bsnewell@illinois.edu\***

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**Office use only**

Date Received: \_\_\_\_\_

Comments:

TEC Curriculum Coordinator's Signature \_\_\_\_\_ Date \_\_\_\_\_