UNIVERSITY OF LOUISIANA AT LAFAYETTE

STEP COMMITTEE

Technology Fee Application

Science Sensors
Title

Douglas Williams, Aimee Barber
Name (Submitter)

College of Education
Organization

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Signature of Dean or Administrative Head (REQUIRED)

ABSTRACT PAGE

Title: Science Sensors

Date: July 12, 2016

Name (Contact Persons): Douglas Williams

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Dept/College: Department of Curriculum and Instruction, College of Education

Abstract
This proposal requests sets of PocketLab sensor that will be used in hands-on science lessons. PocketLab interfaces via Bluetooth with any mobile device, laptop, or Chromebook. This PocketLab sensor measures motion, acceleration, angular velocity, magnetic field, pressure, altitude, and temperature.

These sensors will be used in secondary science methods courses and elementary technology integration courses (approximately 200 education majors each year).

Hands-on Science Technology

A. Purpose of Grant
This grant will purchase the PocketLab sensor for use in secondary science methods classes and in IRED 320, a required technology integration class. Approximately **200 education majors each year** will use these tools for teaching hands-on science lessons.

This PocketLab sensor measures motion, acceleration, angular velocity, magnetic field, pressure, altitude, and temperature. PocketLab interfaces via Bluetooth to any mobile device, laptop, or Chromebook.

B. Impact on Student Body
This proposal will impact approximately 200 undergraduate students each year.

Additionally, each year approximately 200 K-12 children have opportunities to work with our education majors. At these camps, these children will gain experience using the PocketLab sensor for doing inquiry.

C. The Projected Lifetime Of Enhancement
We expect this project to benefit students for at least the next three years.

C. Person(s) Responsible for Project

a. Implementation: Aimee Barber
b. Installation: Dr. Doug Williams
c. Maintenance: Dr. Doug Williams
d. Operation: Aimee Barber, Douglas Williams
e. Training: Aimee Barber, Douglas Williams

E. Qualifications:

Dr. Douglas Williams has a doctoral degree in educational technology with an emphasis on educational multimedia. He has over 15 years of experience in the computer industry as a programmer, network administrator, and web site designer. Douglas is an Professor in the College of Education.

Aimee Barber is a former first grade teacher with a master's degree in Education of the Gifted and a bachelor's degree in Elementary Education. She is an instructor of Technology in the Classroom and Science for Elementary School where she works with pre-service teachers to bring innovative technologies into K-5 classrooms.

Budget Category Descriptions

Equipment

Qty	Item	Description	Cost/Unit	Total Cost
2	**PocketLab Class Pack of 10**	Sensor	980	1960
			Total:	**$1960**

Budget Proposal

Length of Implementation (in years)	1	2	3
1. Equipment	1960		
2. Software	0		
3. Supplies	0		
4. Maintenance	0		
5. Personnel	0		
6. Others	0		
TOTAL:	$1960		

Timeline

Year 1:

Order and install hardware.

Previously Funded STEP Grants

Mr. David Lynch and Mrs. Louise Prejean had a STEP proposal funded during 2010 to provide software for the department computer lab.

Dr. Doug Williams, Mrs. Louise Prejean, Dr. Yuxin Ma, and Dr. Mary Jane Ford, had a STEP proposal funded during 2006 to provide software for a pedagogical laboratory for pre-service teachers.

Mrs. Louise Prejean, Dr. Yuxin Ma, Dr. Doug Williams, and Dr. Mary Jane Ford, had a STEP proposal funded during 2006 to provide hardware and software for an educational technology course.

Mrs. Louise Prejean, Dr. Mary Jane Ford, and Dr. Doug Williams had a STEP proposal funded during 2005 to provide software for the student computers in the undergraduate computer lab in the College of Education.

Dr. Sally Dobyns, Dr. Doug Williams, and Mrs. Louise Prejean had a STEP proposal funded during 2005 to provide EduCaching equipment for undergraduate and graduate classes.

Dr. Gail Dack, Dr. Ford, Dr. Doug Williams and Mrs. Louise Prejean had a STEP proposal funded during 2005 to provide video equipment for the student computers in the undergraduate and graduate computer labs in the College of Education.

Mrs. Louise Prejean, Dr. Mary Jane Ford, and Dr. Doug Williams had a STEP proposal funded during 2004 to provide robotics software and hardware for the student computers in the undergraduate computer lab in the College of Education.

Dr. Doug Williams, Mrs. Louise Prejean, and Dr. Mary Jane Ford, had a STEP proposal funded during 2004 to upgrade software in the undergraduate computer lab in the College of Education.

Dr. Mary Jane Ford, Dr. Doug Williams, and Dr. Susan Lyman had a STEP proposal funded during 2000 to upgrade the student computers in the undergraduate computer lab in the College of Education. The server was not upgraded as part of this grant.

Dr. Doug Williams, Dr. Mary Jane Ford, and Dr. Susan Lyman had a STEP proposal funded during the 2000-2001 funding cycle to install equipment and software in the College of Education Materials Center.
