

# INSTRUCTIONAL EQUIPMENT REQUEST

## FALL 2019-2020

Internal Use  
IE #: Fall 19-22  
Total \$: 319.69

Requester Name: Irena Keller

Division Name: SLPC

### SUMMARY INFORMATION

Title of Item: Human-Human-Interface by Backyard Brains

Equipment Location Building: 2300

Room: 2329

Location and Delivery Comments:

None

### SECTION 1: EQUIPMENT DESCRIPTION

The equipment is:  A Replacement  An Upgrade  New Equipment/Technology

Describe the specific equipment requested and how it will be used to replace, upgrade or provide new technology to LPC from what is currently in place:

The Backyard Brains Human-Human Interface uses electrophysiology setup, which allows learning exciting neuroscience concepts first-hand. This safe demonstration tool can let students feel how their brain sends an electrical impulse to their arm's muscles, telling them to move, and when the muscles move, this generates an even larger electrical signal. That impulse can further control another person's arm. This will give students a direct education about the importance of electrophysiology as this incoming signal overrides their nervous system and forces their arm to obey somebody else's electrical commands. The

Human-Human Interface is ready with all of the materials to connect one person (the Controller) with another person (the Controlled). It comes with an Arduino microcontroller, already programmed. Plugged onto the Arduino is a Muscle Spikershield, which lets the Arduino understand the signals coming out of the body. With this you can see the electricity in your muscles as they move, but more importantly, use them as a signal to turn on the stimulator. The stimulator, or the stimulation device is harmlessly delivers electricity to another person's arm (the Controlled). The first person, the Controller, will be using the electrical signals from their voluntary muscle movement as a signal to turn on the stimulator. When this happens, the arm of another person (the Controlled) will interpret the electricity as a "contract" signal, and tell their arm to flex.

Controlling muscles by electrical signals from the brain is one of the most difficult concepts to understand and students often struggle with it in the advanced Mind, Brain and Behavior Course (PSYC 4). Demonstrating how it works first hand will make it much easier for students to apprehend. It can also be used for fun and educational neuroscience experiments. So this set up can also be used for other Psychology classes (General Psychology, PSYC 1, or Research Methods PSYC 25).

RECEIVED  
Las Positas College

SEP 20 2019

Administrative Services  
Office of the Vice President

RECEIVED

SEP 20 2019

VP ADMINISTRATIVE SERVICES  
LAS POSITAS COLLEGE

**SECTION 1: EQUIPMENT DESCRIPTION (contd)**

If applicable, describe the legal requirement, mandate, or safety concern for purchase of this equipment, making specific reference to the legal requirement or regulation:

None exist

**SECTION 2: LPC MISSION STATEMENT AND LPC PLANNING PRIORITIES**

**LPC MISSION STATEMENT:**

LPC is an inclusive learning-centered institution providing educational opportunities and support for completion of students' transfer, degree, basic skills, career-technical, and retraining goals.

**LPC PLANNING PRIORITIES:**

- ❖ Accreditation: Establish regular and ongoing processes to implement best practices to meet ACCJC standards.
- ❖ Curriculum: Provide necessary institutional support for curriculum development and maintenance.
- ❖ Tutoring Services: Expand tutoring services to meet demand and support student success in Basic Skills, CTE, and Transfer courses.
- ❖ Professional Development: Coordinate available resources to address current and future professional development needs of faculty, classified professionals, and administrators in support of educational master plan goals.

Specify how the equipment supports *LPC's Mission Statement and Planning Priorities*:

This equipment supports a learning-centered hands on environment and can inspire students to keep learning, generate interest in academic careers, add to motivate complete their degrees or transfer for higher degrees. The better understanding of concepts will also help to succeed and transfer. This will also provide support for curriculum maintenance and will implement best practices.

### **SECTION 3: EDUCATIONAL ITEMS – PROGRAM REVIEW**

**Specify the educational programs this equipment supports:**

This Equipment will support Psychology Program.

**If this equipment is included in your Program Review, please include the exact wording. If equipment is not included, explain why:**

Controlling muscles by electrical signals from the brain is one of the most difficult concepts to understand and students often struggle with it in the advanced Mind, Brain and Behavior Course (PSYC 4). Demonstrating how it works first hand will make it much easier for students to apprehend. It can also be used for fun and educational neuroscience experiments. So this set up can also be used for other Psychology classes (General Psychology, PSYC 1, or Research Methods PSYC 25).



## **SECTION 4: TEACHING AND LEARNING**

**Describe in detail the impact this equipment will have on teaching:**

This inexpensive equipment allows learning exciting neuroscience concepts first-hand in live hands-on demonstration. This safe tool can let students feel how their brain sends an electrical impulse to their arm's muscles, telling them to move, and when the muscles move, this generates an even larger electrical signal.

**Describe in detail the impact this equipment will have on learning:**

Controlling muscles by electrical signals from the brain is one of the most difficult concepts to understand and students often struggle with it. Demonstrating how it works first hand will make it much easier for students to apprehend. It can also be used for fun and educational neuroscience experiments.

**Each academic year, this equipment will impact:** 5-10 # of classes/sections      220+ # of students

## **SECTION 5: OUTCOMES (SLOs)**

**Using your documented SLOs, specify how the equipment will enable student learning outcomes to be achieved.**

This equipment will support of the following SLOs:

Students will be able to discuss how bio-psychological knowledge and principles can be used to address and better understand a wide range of behavioral and physiological problems.

Students will be able to exemplify with concrete examples various brain-behavior relationships.

Students will be able to explain scientific approaches and methodologies used for the study of brain-behavior relationships.

Students will be able to explain the general anatomy and physiology of the nervous system and its relationship to behavior.

**What are the consequences related to learning outcomes if request is not funded?**

The Learning outcomes will be more difficult to achieve.



**SECTION 6: TOTAL COST OF OWNERSHIP (FINANCIAL & SUSTAINABILITY)**

What is the potential life span of the requested equipment?

Unlimited

If new storage is needed what are the storage requirements, location requirements, and costs associated with the new equipment: (NOTE: Specific storage costs should be detailed in the "Part A: Initial Start-up Costs" section below.)

No new storage is required.

If this equipment replaces old equipment but the old equipment will not be retired, are there on-going storage requirements, location requirements, and costs associated with the old equipment? If so, provide details.

None

If your proposed equipment will require assembly or installation, please explain what is required, who will perform it, and what the cost will be

None required, it is easy and safe to use by the instructor.

What will be required to maintain the equipment, such as regular servicing or upkeep? (Specific on-going costs should be detailed in the "Part B: On-Going Annual Operating Costs" sections below as applicable.)

None

Explain how this equipment meets or exceeds basic sustainability efforts and/or provides renewable resources to the college:

The equipment will help students learn and succeed.

**SECTION 6: TOTAL COST OF OWNERSHIP (contd)**

**Part A: Initial Start-up Costs**

<u>Item</u>	<u>Cost</u>	<u>Comments</u>
Equipment or Materials	259.99	
Taxes (9.5%)	24.70.00	
Shipping or Delivery Charge	35.00	
Installation Costs *	0.00	
Miscellaneous Costs:		
Facilities Modifications	0.00	
Operator Training	0.00	
Maintenance & Repair Training	0.00	
Storage	0.00	
Other: _____	0.00	
Vendor Discount		
<b>Grand Total:</b>	<b>\$ 319.69</b>	

\*For items requiring installation, requesters are required to check with District Purchasing (Victoria Lamica) regarding District policies.

**Part B: On-Going Annual Operating Costs**

<u>Item</u>	<u>Cost</u>	<u>Comments</u>
Annual Service or Maintenance	0.00	
Estimated Parts Replacement Per Year	6.43	9v Battery
Outside Standardization or Calibration Costs	0.00	
Storage Costs	0.00	
New Supply Costs	0.00	
Miscellaneous Costs:	0.00	
Maintenance & Repair Labor	0.00	
Other: _____	0.00	
<b>Annual Operating Costs:</b>	<b>\$ 6.43</b>	

**Indicate the source of funding for on-going annual operating costs:**

Personal
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**SECTION 6: TOTAL COST OF OWNERSHIP (contd)**

**Part C: Incremental Labor Costs**

**OPERATOR:**

Indicate the key operator: None required

Is this in their current scope of duties? \_\_\_\_\_

Indicate cost to train key operator (include in Initial Start-up Costs above): \_\_\_\_\_

Indicate amount of time per month key operator will use equipment: \_\_\_\_\_

**MAINTENANCE & REPAIRS:**

Indicate the person performing maintenance and repairs: None required

Is this in their current scope of duties? \_\_\_\_\_

Indicate cost to train for maintenance and repairs: \_\_\_\_\_


Indicate amount of time per month maintenance will be required: \_\_\_\_\_

**APPROVALS**


Funded requesters will be expected to respond to a brief RAC feedback survey by a requested deadline.

- ❖ Requests for computer-related equipment and printers must be reviewed and signed off by the LPC IT Department.
- ❖ Requests that require M&O assistance with assembly or installation must be signed off by M&O.

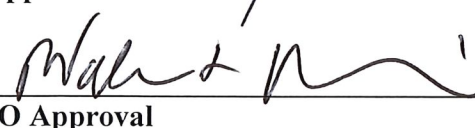
**SIGNATURES:**

  
Requester

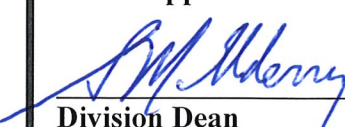
9/13/2019  
Date

  
IT Approval

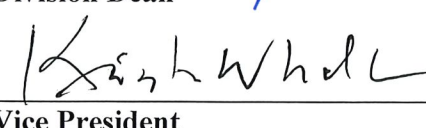
9/24/19 N/A  
Date

  
M&O Approval

9/24/19 N/A  
Date

  
Division Dean

9/18/19  
Date

  
Vice President

9/20/19  
Date











# Request for Taxpayer Identification Number and Certification

**Give Form to the  
 requester. Do not  
 send to the IRS.**

▶ Go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9) for instructions and the latest information.

Print or type. See Specific Instructions on page 3.	<b>1</b>	Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. <b>Backyard Brains Incorporated</b>		
	<b>2</b>	Business name/disregarded entity name, if different from above <b>Backyard Brains</b>		
	<b>3</b>	Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only <b>one</b> of the following seven boxes.  <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____ <b>Note:</b> Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is <b>not</b> disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.  <input type="checkbox"/> Other (see instructions) ▶ _____ <input type="checkbox"/> C Corporation <input checked="" type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate	<b>4</b>	Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):  Exempt payee code (if any) _____  Exemption from FATCA reporting code (if any) _____  <i>(Applies to accounts maintained outside the U.S.)</i>
	<b>5</b>	Address (number, street, and apt. or suite no.) See instructions. <b>308 1/2 S. State St. Ste 35</b>	<b>Requester's name and address (optional)</b>	
	<b>6</b>	City, state, and ZIP code <b>Ann Arbor, MI 48104, USA</b>		
	<b>7</b>	List account number(s) here (optional)		

## Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

**Note:** If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

<b>Social security number</b>										
or										
<b>Employer identification number</b>										
2	6		-	4	4	2	8	5	4	2

## Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

<b>Sign Here</b>	Signature of U.S. person ▶	Date ▶	Aug 29, 2018
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## General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9).

## Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

*If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.*









Do you supply recycled Products?

Yes

No

### Part B: Address Questionnaire

1. General Mailing Address:

Address 308 1/2 S. State St. Ste. 35

City Ann Arbor

State MI Zip 48104 -

Contact Name Zorica Reic

Title Production Manager

Phone (855) 438 - 7745 Ext

Fax (734) 527 - 5965

2. Remittance Address:

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_ - \_\_\_\_\_

Contact Name \_\_\_\_\_

Title \_\_\_\_\_

Phone (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ Ext \_\_\_\_\_

Fax (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

### Part C: Commodity and Service Codes

Type of commodities or services that your business provides

Teaching equipment

### Part D: Completing and Returning Application

1. Name of Person Completing Form

Name Irena Keller

Title Professor

Phone (925) 424 - 1266 Ext \_\_\_\_\_

Fax (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

Signature Irena Keller Digitally signed by Irena Keller  
Date: 2019.09.20 12:57:20 -07'00'

Date 9/20/2019

2. Return Completed Application to:

Purchasing Department  
Chabot – Las Positas CCD  
7600 Dublin Blvd, 3<sup>rd</sup> Floor  
Dublin, CA 94568  
Fax: (925) 485-5271

### DO NOT COMPLETE – FOR INTERNAL USE ONLY

Received \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Input \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Vendor No. \_\_\_\_\_

Received \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Input \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

New  Updated





# BACKYARD BRAINS

308 1/2 S. State Street  
Suite 35  
Ann Arbor, MI, 48104

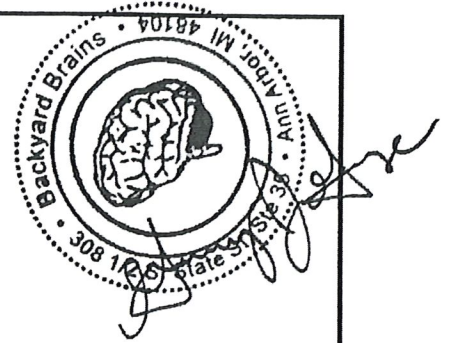
sales@backyardbrains.com

Phone: +1 (855) GET-SPIKES  
+1 (855) 438-7745  
Fax: (734) 527-5965

## QUOTE

Quote #9677  
Date: 9/14/2019  
Quote valid for 60 days  
Payment Terms: NET 30

TO: Irena Keller  
Las Positas College  
3000 Campus Hill Drive  
  
Livermore, CA 94551  
United States  
irena.keller@gmail.com  
9259983242



DESCRIPTION	UNIT	PRICE	AMOUNT
Human-Human-Interface	1	\$259.99	\$259.99
Purchase Order Fee	1	\$20.00	\$20.00

We accept Credit Cards, Checks and Wire Transfers to:  
Bank Name: Bank of America  
Routing Number: 072000805  
Account Number: 3750 1087 8672  
Swift (US Dollars): BOFAUS3N  
Swift (Foreign Currency): BOFAUS6S

MI TAX:  
SHIPPING AND HANDLING: \$15.00  
TOTAL: \$294.99

Payments should be paid in U.S. Dollars

All Wire Transfer Fees to be paid by purchaser.

