



Instructional Equipment Request (IER) Form

FY 2023-2024

Title of Submission:	Drone Technology Program - Battery Replacement
----------------------	--

Please review all information carefully to ensure timely processing. More information can be found [here](#).

Deadline	Action
10/11/2023	IER forms due to Division Dean
10/18/2023	Division review of IER forms (Dean & VP signature)
10/20/2023	IER forms due to Executive Assistant of Administrative Services (with Dean & VP signature)

Checklist

- All IER form fields complete
- Valid quote attached to submission (must be attached before submitting form)
 - Shipping, installation, and tax** are required on the quote, whenever applicable. This must be provided by the vendor themselves. **Do not split quotes or submit duplicate quotes.**
 - IMPORTANT:** To comply with state law, purchases between \$30,000.00 and \$109,299.99 require 3 quotes from 3 different vendors. We're required to proceed with the cheapest option unless a compelling argument can be provided for a more expensive option. If your request is approved, you will be notified *via email* to obtain an **updated quote, two additional quotes**, and complete a [requisition](#) form. Please monitor your email closely throughout the fiscal year as we **cannot** proceed with your request until these quotes, and any additional requirements, are provided.
 - Purchase requests of \$109,300.00 or more must go out for bid* (aka RFP process) and then go to Board for approval. You will be provided further instruction via email after your request is approved.
 - For assistance with quotes, please contact Bill Pagano at bpagano@clpccd.org or (925) 485-5271.
- IER form, with quote, signed and submitted to Division Dean including:
 - Quote (required)
 - [New Vendor Application](#) (if new vendor)
 - Copy of [W9](#) (if new vendor)

***Bid Process:** Purchasing submits RFP & selects cheapest bid → Requestor submits [Requisition](#) → Business Office enters Requisition in Banner → Requestor submits Board packet with copy of entered Requisition.

IER Process Flow

1. Completed packet signed and submitted to Division Dean
2. Dean reviews and forwards to Vice President
3. Vice President reviews and forwards to Executive Assistant of Administrative Services
4. Executive Assistant logs requests and forwards to M&O and IT for review
5. RAC reviews and scores requests
6. Executive Assistant combines committee scores into final rankings for final RAC review
7. RAC Chair meets with College President to discuss ranked requests
8. College President issues approval memo to RAC
9. RAC notifies requestors via email of approved requests and additional steps (e.g. additional quotes, board, etc.)
10. RAC submits IER forms to Business Office for processing
11. Business Office reviews requests, enters into Banner, and forwards to Purchasing
12. Purchasing will assist with requests that must go out for bid and requires board approval (requestor will be notified)

Instructional Equipment Definitions

Allowable Items

Allowable Items: Instructional equipment expenditures are eligible if the equipment, library material, or technology is for classroom instruction, student instruction or demonstration, or in the preparation of learning materials in an instructional program. There are five categories that will be used to classify instructional support. Please note that requests are not limited to the examples shown below.

1. **Equipment and Furniture:** instructional equipment and furniture for primary use by students in instructional programs:
 - a. Classroom/laboratory equipment including whiteboard, screen, projector, etc.
 - b. Instructional furniture including desks, tables, podium, chairs, etc.
2. **Information Technology:** instructional information technology equipment for student use in classrooms and/or laboratories including desktops, laptops, monitors, printers, servers, network/wireless infrastructure, AV/TV, multimedia.
3. **Software:** software licenses are allowed but only the initial year is permitted. Other software that are permitted are those that are used in excess of one year and software modifications that add capacity or efficiency to the software that defers obsolescence and results in an extension of the useful life of the software, including registration, counseling, student services, learning management systems for student use.
4. **Adaptive Equipment:** adaptive equipment for ADA/OCR students are allowed to assist them in a learning environment.
5. **Library Material:** databases, online subscriptions, books, periodicals, videos, etc.

Non-Allowable Items

Non-Allowable Items: Administrative or non-instructional purposes including equipment being used for administrative or non- instructional purposes is not allowed, including photocopiers, file cabinets, bookcases, computers, networking infrastructure, software licenses.

IE Rubric

RAC evaluates each IE request based on the rubric below. RAC stresses the importance of quality requests. RAC may choose not to rank incomplete IE requests.

Criteria	Strong Evidence	Adequate Evidence	Limited Evidence
LPC Mission & Planning Priorities [Section 2] (5 points) Ranking Scale	Clear and compelling evidence/data that equipment will fully support LPC Mission and Planning Priorities. 4-5	Clear evidence/data that equipment will fully support LPC Mission and Planning Priorities. 2-3	Limited or no evidence/data that equipment will support LPC Mission and Planning Priorities. 0-1
Educational Items: Programmatic Impact and Institutional Support [Section 3] (10 points) Ranking Scale	Clear and compelling evidence/data (as stated in program review) that this equipment will have substantial impact on program curriculum. 8-10	Clear evidence/data (as stated in program review) that this equipment will have substantial impact on program curriculum. 4-7	Limited or no evidence/data (as stated in program review) that this equipment will have an impact on program curriculum. 0-3
Teaching & Learning [Section 4] (10 points) Ranking Scale	Clear and compelling evidence/data that equipment provides much needed or beneficial enhancement to instruction. 8-10	Clear evidence/data that equipment provides enhanced instruction that is not met through current means. 4-7	Limited or no evidence/data that equipment provides enhanced instruction that is not met through current means. 0-3
Outcomes [Section 5] (5 points) Ranking Scale	Clear and compelling evidence/data that equipment will support course and/or program outcomes above and beyond current capability. 4-5	Clear evidence/data that equipment will support course and/or program outcomes beyond current capability. 2-3	Limited or no evidence/data that equipment will support course and/or program outcomes beyond current capability. 0-1

Instructional Equipment Request Form

Name of Requestor: Daniel Grover Cearley Division: PATH

Discipline: Anthropology

This Equipment Request is: A Replacement

SECTION 1: Equipment Description

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:

Equipment Location

Building #: 1000 Room #: 1061

Comments:

This request will allow our students to practice their skills for longer periods of time, create opportunity for more students to be involved in exercises, and allow higher enrollment numbers. The equipment from the vendor DSLR Pros will replace damaged batteries.

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

n/a

SECTION 2: LPC Mission Statement and LPC Planning Priorities

LPC Mission Statement

Las Positas College is an inclusive, learning-centered, equity-focused environment that offers educational opportunities and support for completion of students' transfer, degree, and career- technical goals while promoting lifelong learning.

LPC Planning Priorities

- Establish a knowledge base and an appreciation for equity; create a sense of urgency about moving toward equity; institutionalize equity in decision-making, assessment, and accountability; and build capacity to resolve inequities.
- Increase student success and completion through change in college practices and processes: coordinating needed academic support, removing barriers, and supporting focused professional development across the campus.

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

This equipment reinforces our LPC priorities by creating more opportunities to practice on equipment which can be financially restrictive for many to own. Students from a wide range of backgrounds will be able to gain experience and develop their skills on common professional grade commercial equipment. This investment reduces a financial barrier common in industries that are dependent upon technology and specialized training.

SECTION 3: Educational Items | Program Review

Specify the educational programs the equipment supports:

These resources will directly support the Drone Technology program. There are currently three non-credit courses each Fall semester and four offered in the Spring, each are capped at 15 students however with creative use of existing equipment we have been able to over-enroll. This technology has been used for one-day pilot skills training workshops in anthropology courses and the LPC Film Makers Student Club. The program has also conducted demonstrations at the Tri-Valley Innovation Fair each Spring and at the Quest Science Science@Stockmen's Park events.

Is the equipment part of an upcoming Program Review? Was it included last year? If not, why? Use language from your Program Review to explain:

The need for batteries was highlighted in our 2022/2023 program review, "In our beginner class, we found that we had limited battery life for the drones and we were unable to fly continuously throughout the session. One solution would be to invest in more batteries, which was part of our IER request."

SECTION 4: Teaching and Learning

Please use evidence and data that describes how the equipment provides enhancements/benefits to the current level of teaching capabilities:

During instruction, drones are operating approximately more than half of the total length of the course and are dependent upon batteries for operation. Battery management is a consistent theme for this type of technology. It is expected that battery health will be monitored and periodic replacement will be necessary. It is essential that the batteries used for instruction are carefully managed and are in the highest level of condition.

Detail the impact the equipment has on learning:

These replacement batteries are geared toward increasing the students time spent with the equipment. The investment will allow students to gain more experience and increase their skill levels. The program is a model of "learning by doing" and can have significant impact on comprehension and developing problem solving skills.

Please state the number of classes and students the equipment will impact:

Classes/Sections: NAVI 201 and 202/2-3 sections	Students: 60-75 per academic year
--	--

SECTION 5: Student Learning Outcomes (SLOs)

Document how the equipment will enable you to surpass your current Student Learning Outcomes:

Both of the NAVI courses will benefit from the investment in equipment and will help students achieve and surpass the following SLOs.

The replacement batteries will increase the amount of time of students practicing with equipment. The equipment will be more representative of what is utilized in industry. It will help students complete projects in a shorter amount of time.

NAVI 201

2. Safely operate a UAS and perform a controlled take-off, demonstrate basic flight controls, and execute a landing.
3. Describe the varied uses of an Unoccupied Aerial System (UAS) in multiple disciplines and careers.

NAVI 202

2. Create and produce an original professional presentation to tell a story using aerial photography, Videography, and/or other remote sensing data set.

SECTION 6: Total Cost of Ownership | *Maintenance and Sustainability*

Does the new equipment replace older equipment? If so, will you retire/surplus the old equipment? If not, where will you store the older equipment and what are the associated storage costs?

The technology has varied lifespan estimations. The batteries have been tested to undergo a minimum number of cycles, a Lithium-Ion battery's average life span is 300 to 500 charge cycles. Depending up on the usage, the batteries may provide more than 5+ years or service.

Detail how the equipment meets or exceeds [LPC's Sustainability Efforts](#):

Lithium ion batteries have the ability to be recharged and have a long lifespan. With this said, recycling lithium ion batteries is expensive and challenging, it is currently cheaper to buy new lithium than to use recovered lithium from old batteries. There are indications that government policy is shifting and institutions recognize that recycling Lithium needs to be prioritized in order to reach sustainability goals. This will push Industry to create more closed loop supply chains to ensure that valuable resources are not wasted.

How does the equipment provide renewal resources to the college?

Please read above statement.

Operator

Primary operator:	Daniel Grover Cearley		
Does the work align with current position duties?	Yes		
Cost to train primary operator:	0.00		
Approx. # of hours equipment will be used per month:	20		
Comments:			

Maintenance and Repairs

Who will perform maintenance and repairs?	Daniel Grover Cearley		
Estimated hours per month:	4		
Does the work align with current position duties?	Yes		
Cost to train for maintenance and repairs:	0.00		

SECTION 6: Total Cost of Ownership | *Maintenance and Sustainability (cont'd)*

Lifespan of Equipment: 5 years

FOAP (Budget) for Recurring Costs:

Fund

Org

Acct

Program

Part A: Initial Start-Up Costs		
Type	Cost	Comments
Equipment or Materials	2,800.00	DJI TB60 Intelligent Flight Battery
Shipping & Delivery Fees	0.00	Included in quote
Installation Costs	0.00	
Miscellaneous Costs	0.00	
Modification to Facilities	0.00	
Operator Training	0.00	
Maintenance/Repair Training	0.00	
Other	0.00	
(Enter as Positive) Discounts	0.00	
Start-Up Total	2,800.00	
Part B: Annual Operating Costs		
Type	Cost	Comments
Service/Maintenance	0.00	
Part Replacement	0.00	
Vendor Calibration or Standardization	0.00	
Storage	0.00	
Supplies	0.00	
Maintenance/Repair Labor	0.00	
Software Licensing	0.00	
Other	0.00	
Annual Total	0.00	
Overall Cost:	2,800.00	

Approvals and Signature Routing

Before signing below, please confirm all fields are filled out and all information provided is correct. Requests must be fully complete, signed, and submitted to your Division Dean by the deadline (see page 1). **Quote must be attached to this form before submitting.**

Title	Signature	Date
Requestor:	<i>Daniel Cearley</i>	10/13/2023
Division Dean:	<i>Kevin Kramer</i>	10/19/2023
Vice President:	<i>Nan Ho</i>	10/23/2023
College Technology Services Manager:	<i>Stephen Gunderson</i>	10/23/2023
M&O Director:	<i>John Seybert</i>	10/23/2023
Vice President, Administrative Services:		



DSLR *Pros*™

Intelligent Drone Solutions

Prepared by:

Derek Wheeler

DSLRPros.com

sales@dslrpros.com

Prepared for:

Dan Cearley

Las Positas College

Date Created: 10 / 13 / 2023 14:38

Quote ID: DEQFA-WJADQ-PH3YF-P5UCP

Name	Price	QTY	Subtotal
DJI TB60 Intelligent Flight Battery 2x Batteries required for each flight S-DJI-TB60 	\$700.00	4	\$2,800.00
Shipping & Handling			
Ground Shipping	\$0.00	1	\$0.00

Subtotal **\$2,800.00**

Total \$2,800.00

Signatures

Again, we want to thank you for purchasing your equipment or services with DSLRPros.com. By signing below you agree to our terms and conditions and have read and understand the pricing provided. You also agree not to share the information & pricing provided in this document to anyone outside of your organization. <https://www.dslrpros.com/terms-of-use>

Signatures	
_____	_____
Signature	Date
_____	_____
Name	Title