

UNIVERSITY OF LOUISIANA
AT LAFAYETTE

STEP Committee

Technology Fee Application

BOSS FILTRABOX COMPACT X Filtration
System/ Visual Arts Department

Professor Jamie Baldrige (PI)
Associate Professor Daniel DiCaprio (Co-PI)

Michael McClure, Interim Dean, College of the Arts

Title: BOSS FILTRABOX COMPACT X Filtration System

Department: Visual Arts

Date: January 03, 2022

Name: (Contact Person) Jamie Baldrige, Professor

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Department/College/Org: Department of Visual Arts

ABSTRACT

This grant proposal requests funds for a BOSS FILTRABOX COMPACT X filtration system to be deployed in the Department of Visual Arts. This multi-stage laser fume extraction system incorporates pre-HEPA F9 Glass filtration, HEPA filters, and Activated OXY-Carbon to filter and recirculate clean air. It is necessary to deploy and run the department's newly acquired BOSS laser cutter.

A. Purpose of Grant

The purpose of this grant is to install a BOSS FILTRABOX COMPACT X filtration system on the department's BOSS laser cutter. This will allow the Department of Visual Arts to integrate this versatile technology into the curricula of multiple classes on a permanent basis.

Currently, the BOSS laser cutter/etcher is unavailable for use due the lack of exhaust and ventilation necessary during the laser's operation. While cutting or etching the laser produces smoke, fumes, and volatile organic compounds that contaminate the building and act as irritants to those with respiratory sensitivity. As the university has forbidden the implementation of an exhaust system to ventilate the fumes to the outside of the building, a self-contained filtration system is the only alternative. Fortunately, the laser manufacturer has designed the BOSS FILTRABOX COMPACT X filtration system for just such a scenario.

Impact to Student Body

Over the past decade, laser cutting technology has become a standard tool in art and design. The versatility of this equipment makes it a highly valued addition to multiple concentrations within the Department of Visual Arts. Metalsmithing students utilize the laser system for etching and mold making; Graphic Design and Printmaking students utilize it for block etching, die cutting and silk screen stencils; Animation students utilize it for precision cutting of stop-motion animation templates; Sculpture students utilize it for creating parts and assemblies; New Media and Digital Art students utilize it for prototyping and

installation assembly. The impact of this equipment is wide-ranging and profound. The current lack of the laser cutter's availability for use is a hinderance to the department's goal of maintaining student proficiencies in industry-standard technologies. The requested equipment will provide 75-100 students per year with the tools and techniques currently in use in multiple industries to create new work and to build portfolios that will get them jobs in their chosen fields.

Specifically, this grant will have significant and immediate impact on the following classes:

VIAR 303 (Introduction to Printmaking)
VIAR 304 (Intermediate Printmaking)
VIAR 335 (New Media & Digital Art I & II)
VIAR 345 (Visual Communications)
VIAR 346 (Design Production Processes)
VIAR 347 (Typography I)
VIAR 348 (Typography II)
VIAR 403 (Advanced Printmaking)
VIAR 435 (Advanced New Media and Digital Art)
VIAR 445 (Studio Practices)
VIAR 446 (Studio Practices II)
VIAR 365 (Introduction to Animation)
VIAR 366 (Intermediate Animation)
VIAR 409 (Senior Project I)
VIAR 410 (Senior Project II)
VIAR 435 (New Media & Digital Art Workshop I, II & III)
VIAR 465 (Advanced Animation)

B. Projected Lifetime of Enhancement

The equipment requested in this grant will have a service life of 10+ years.

C. Persons Responsible for Implementation, Installation,

Maintenance

The requested equipment will be located in the Visual Arts Annex, room 102, in the Department of Visual Arts. This room is locked and will be accessible during class times only. Professor Jamie Baldridge and Associate Professor Daniel DiCaprio will install, oversee, and service the equipment listed in this grant.

D. Budget Equipment Budget and Justification

1. BOSS FILTRABOX COMPACT X filtration system

This technology is necessary to run our BOSS LS-1630 Laser Cutter.

Quantity: 1

Price: \$3,475.00

Shipping: \$557.75

Total \$4,032.75

Quantity	Item Description	Cost Per Unit	Total Cost
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Equipment:

1	BOSS FILTRABOX COMPACT X filtration system	\$3,475.00	\$3,475.00
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Personnel

0	N/A	\$0	\$0
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Shipping

1		\$557.75	\$557.75
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Grand Total (Requested Funds): **\$4,032.75**

Previous STEP Funding:

Professor Jamie Baldrige has received seven (7) previous STEP grants that were implemented to convert the Photography area from a traditional darkroom work environment into a digital work environment, and expansion of the New Media and Digital Art concentration's curriculum with cutting edge digital cinematography technology.

Associate Professor Daniel DiCaprio has received two (2) STEP grants for both 3D Printers and the aforementioned BOSS LS-1630 Laser Cutter.

All of these grants were completed and meet all the outlined goals and objectives with all equipment still in use.