UNIVERSITY OF LOUISIANA AT LAFAYETTE

STEP Committee

Technology Fee Application

**Equipment for Hybrid Animation
in the Department of Visual Arts**

Title

Yeon Choi

Name of Submitter
(Faculty or Staff Only)

**Department of Visual Arts,
UL Lafayette**

Organization

Title: Equipment for Hybrid Animation   Date: 07/10/18

Name (Contact Person):   Yeon Choi, Professor

Address: Fletcher Hall 302

Phone Number: 2-5324   Email: yeon@louisiana.edu

Department/College/Org: Department of Visual Arts/College of the Arts

ABSTRACT (250 words or less):

This proposal requests funds for four 2D animation stands and a 3D animation station with a lighting system, a digital camera, and a computer with image capture software. Using this equipment, students can create various handmade animations and combine these with computer animations to create hybrid animations.

A) Purpose of Grant

The professional animation field is moving toward hybrid animation, which combines traditional mediums of animation and digital animation. To prepare as professional animators, students must learn hybrid animation techniques as well as traditional media and computer animation techniques. However, the facilities currently in the classroom support only digital techniques, and there is an urgent need for traditional animation equipment.

With the requested equipment, students will be able to record drawings, paper cut-outs (collages), and objects frame-by-frame and store them in the computer. Through digital means they can then hybridize such hand-made works to create more complex and expanded forms of motion graphics.

In its self-study questions NASAD (National Association of Schools of Art and Design) asks if students gain understanding and abilities to use various animation methods including traditional animation, 2D digital animation, and 3D digital animation. Animation stands equipped with computers will allow students to gain the knowledge of traditional animation that NASAD recommends, and to create hybrid forms of animation by fully integrating traditional and digital media. This grant will provide students access to the equipment they need to create work of professional quality and offer them a firm understanding of the technology pertinent to their field.

The requested equipment will also broaden the scope of the program and is urgently needed for improved classroom instruction and student work, as it will allow the Visual Arts courses to continue to meet pedagogical goals and to produce technologically and conceptually proficient students. It will also enable the Visual Arts Department to expand its educational offerings by incorporating additional methods and media. This equipment will help provide our students with a solid educational grounding that meets industry standards, which will contribute to making them competitive on the job market.

The Impact to Student Body

This grant directly impacts the following classes: VIAR 235, Art and the Computer; VIAR 236, Art and the Computer for Time Based Medium; VIAR 335, New Media and Digital Art Workshop I & II; VIAR 365, Introduction to Computer Animation; VIAR 366, Intermediate Computer Animation; VIAR 435, New Media and Digital Art Workshop III; and VIAR 465, Advanced Computer Animation. Additionally, animation students in VIAR 409, Senior Capstone Art Project I and VIAR 410, Senior Capstone Art Project II will use the equipment. This grant will have an impact across departments, as students in Computer Science, Informatics, and Moving Image Arts who enroll in Computer Animation classes will also benefit from this equipment.

Graduates of the Computer Animation Program in the Visual Arts Department are employed in the game industry, the film industry, and in multimedia advertising, both regionally and nationwide. With support and funding, this program will continue to advance, producing graduates who will find a wide range of employment opportunities in their field, including work that will make an important contribution to the economic development of the State of Louisiana.

B) Projected lifetime of enhancement

The animation stands will serve for over twenty years, and the cameras and the computers with software should serve student needs for approximately eight years.

C) Person(s) responsible for

i) Implementation
Professor Yeon Choi will be responsible for the implementation of the animation stands, the hardware, and the software.

ii) Installation
Professor Yeon Choi will be responsible for the installation of the equipment.

iii) Maintenance
Professor Yeon Choi will be responsible for maintenance.

iv) Operation
Professor Yeon Choi will be responsible for the operation of the program (and equipment).

v) Training (with qualifications)
Yeon Choi is a Professor of Computer Art and Animation in the Department of Visual Arts at the University of Louisiana at Lafayette. She received her B.F.A. and M.A. in Painting from Ewha University in Korea, and an M.F.A. in Computer Arts focusing on Computer Animation from the University of Massachusetts at Amherst. Her expertise includes digital imaging, animation, film, video, and web design. She is proficient in the use of 2D and 3D graphics and animation software, including Maya, 3DS Max, Adobe Photoshop, Adobe After Effects, Adobe Premiere, Adobe Animate, Adobe Dreamweaver, and Clip Paint Studio. She also has experience in the use of UNIX, and C++ programming language. She can train students on all of the hardware and software that will be provided from this grant.

D) Narrative of the Budget Proposal

A. <u>Beseler CS-14 with CLA Light Arms and Two R50, 5" Reflectors:</u> Animation stands are used to record 2D images one frame at a time. The stand is designed to support a camera on an adjustable column. Animation stands are standard equipment in the industry.

B. <u>Cinetics Lynx 3-Axis Motorized Slider:</u> This mounting and sliding system is used to record 3D images. With this three-axis motorized slider, images can be recorded in video, time lapse, and stop-motion modes.

C. <u>Animation Computers</u>: These computers run Dragon Frame image-capture software. They are the principal tools for viewing and capturing (recording) individual frames for both 2D and 3D animation.

D. Canon EOS Rebel T6i DSLR Camera: These digital cameras are the devices that record the individual frames (images) that make up the animation. These cameras will be mounted on four animation stands (2D), and a camera slider (3D), and connected to their own individual computers.

E. Manfrotto Pro Studio Rail System 33 Kit: This is an overhead lighting suspension system that will be used for the 3D animation station.

F. Porta-Trace Gagne 16 x 18" Light boxes: These are used for silhouette animation, sand animation, painting-on-glass animation, and certain forms of hand-painted animation (2D animation).

G. Chroma Key Paint: This paint will be used to create green screen walls for 3D animation table. Green screen is a compositing tool that is essential for creating hybrid animation with digital technologies such as a CG environment or Digital Matte Painted environment.

H. Light Bulbs: Light bulbs are required for the 2D animation stands and 3D lighting rail system.

I. Dragon Frame: This software allows the computer to capture individual frames with a digital camera, forming the basis of motion graphics.

Budget Proposal

1) Equipment	Quantity	Unit Price	Total Price
A) Animation Stand - Beseler CS-14 with CLA Light Arms and Two R50, 5" Reflectors	4	$789.95	$3159.80
B) Cinetics Lynx 3-Axis Motorized Slider	1	$1,599.95	$1,599.95
C) Dell OptiPlex 5260 All-in-One Computer	5	$1,470.00	$7,350.00
D) Canon EOS Rebel T6i DSLR Camera	5	$599.00	$2,995.00
E) Manfrotto Pro Studio Rail System 33 Kit	1	$1,963.88	$1,963.88
F) Porta-Trace Gagne 16 x 18" Light boxes	4	$349.50	$1,398.00
G) Chroma Key Paint (Green, 5 Gallons)	1	$366.95	$366.95
H) Light bulbs	11	$10	$110
2) Software			
I) Dragon Frame (Educational License)	5	$125.00	$625.00
3) Supplies			$ 0
4) Maintenance			$ 0
5) Personnel			$ 0
6) Other			$ 0
Grand Total (Requested Funds)			
			$19,568.58

Previous Step Grant Funded

STEP Grant G298N2 (Dr. Tim Roden, Yeon Choi, Dr. James Etheredge)
As awarded, STEP grant G298N2 called Motion Capture Laboratory. Grant amount: $99,678.75

STEP Grant G298BH (Yeon Choi)
As awarded, STEP grant G298BH called Maya License Renewal for Computer Animation Studio in Fletcher Hall. Grant amount: $7,999.60