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Application Summary

Competition Details

Competition Title: MSFT Applications for 2021-2022

Category: Internal Funding

Award Cycle: 2021-2022

Submission Deadline: 03/16/2021 10:00 AM

Application Information

Submitted By: Eric Kaltman

Application ID: 858

Application Title: Dedicated Lab Space for Computer Game and Interactive Arts Development

Date Submitted: 03/16/2021 9:47 AM

Personal Details

Applicant First Name: Eric

Applicant Last Name: Kaltman

Applicant Department: Computer Science

Email Address: eric.kaltman@csuci.edu

Phone Number:

Who is the Staff Support for Project/Activity?: Ricky Medrano

Staff Support email: ricky.medrano@csuci.edu

Application Details

Proposal Title

Dedicated Lab Space for Computer Game and Interactive Arts Development

Brief Project Description

This proposal is requesting funds to setup a dedicated computer game and interactive arts development and analysis lab. The Computer Science Department, in collaboration with Art, Management, and Mathematics offer an interdisciplinary Minor in Computer Game Design. This lab would provide a dedicated space to support students pursuing courses in the Minor as well as any other student projects requiring the use of contemporary gaming and virtual reality equipment. MATH 137 "Strategies and Game Design", COMP 337 "Surveys of Computer Games" and COMP 437 "Computer Game Design" would see immediate benefit as the equipment and game purchases for the lab would allow each course to analyze and assign modern console and PC games.

Currently, we cannot assign a large variety of important titles due to the prohibitive expense of game consoles and desktop gaming machines. The lab space would alleviate this economic pressure on students and allow for scheduled and reserved use of game titles and equipment for course assignments, design inspiration (for student developers), and development projects. Many computer science capstone projects also involve creating games or other interactive software. As the gaming machines would need to run modern titles, they would also support game and interactive software development frameworks like the Unity and Unreal engines. Additionally, non-game projects from any major or department would also be able to make use of the machines for any graphically intense artworks or visualizations. Lastly, a potential location for the lab would also allow for the incorporation of a room-scale virtual reality (VR) system for students interested in VR project development.

The final location of the lab space is still being determined, with one currently approved location inside the networking lab in Sierra Hall 1131. A more suitable location, both for spatial arrangement and security, is being explored for a lounge area in Solano Hall 2167. Funding is included in this proposal to enclose the lounge area for the lab. This "enclosure" would consist of a new door installation in addition to 1-2ft of wall on either side.

This application is targeted for the Solano Hall space, modifications for the networking lab will be noted in the budget detail.

The basic organization of the lab would be into dedicated stations equipped with:

1. A gaming monitor
2. Two pairs of headphones
3. A dedicated gaming PC
4. A collection of modern game consoles (Nintendo Switch, PlayStation 4 / 5 and Xbox One X / Series X)
5. Controllers for each console

This configuration of equipment is highly flexible with different budget constraints. The application budget is a maximum for the space.

Additional expenditures would include:

1. Tables for the stations (or multiple stations) depending on the room configuration
2. Security locks for the PCs and consoles
3. VR equipment
4. Shelving for the lockable closet in Solano 2167 (or a locking cabinet if using Sierra 1131)
5. A base amount set aside for the purchase of a game library mainly through digital distribution channels, plus a couple of historically important titles.

The space would also include open hours, similar to the GIS lab in Sierra Hall and would ideally be staffed, part-time, by a student who would manage equipment access and setup. Otherwise, Computer Science would provide means for students to access the lab while enrolled in gaming and interactive development related courses.

Amount of MSFT Funding Requested

34,120

Project/Activity Budget Detail

The proposed total budget for the lab is \$34,120, this would include room enclosure, all necessary equipment and furniture for four stations and 16 hours per week of student support staff time at \$15/hr. If the Solano location does not work out due to unforeseen issues with modifying the space, then the proposal budget will decrease by the estimated cost of the enclosure. Additionally, due to the shared nature of the networking lab, staff time would be reduced to 10 hours per week from the current proposal of 16 hours per week, and there would not be the potential for a room-scale VR space.

The budget timeline includes an initial setup cost for materials and furniture of \$20,040 and room enclosure costs of \$5,000 in summer of 2021. This is followed by \$8,580 for staff support during the academic year and an additional \$500 for game library updates during winter break 2021-2022. The current timeline assumes that the room enclosure work will be completed in July 2021. If there is a delay, then the funding for staff time would be reduced.

Gaming PCs differ from current lab PCs in their storage, memory, CPU, and most importantly, GPU requirements. Computer games can require up to 250GB for a single installation and significant computational resources. Each PC would include a current generation GPU, multi-core CPU and at least 32GB of RAM to support graphically intense applications. Two stations would also include equipment for seated VR (Oculus Quest 2), and there would be a single room-scale VR system attached to a single station.

As noted above in the project proposal, the budget proposed here is a maximum for the spatial constraints of the potential lab locations. It would be possible to reduce the number of stations and number of individual equipment purchases per station while still providing an effective lab space. For example, there could be two PC stations and two console stations, or a single station for each type of system.

The student staff member would be responsible for maintaining and configuring equipment for users, logging lab use metrics, and providing secure access to the lab facility while in use.

Will you receive funds from any other source(s)?

No

Other Funding Sources

Has this project or activity previously received MSFT funding?

No

Acknowledgment

Fiscal Management

Project applicant/sponsor's unit or department may be responsible for incurred over and above what is funded through the MSFT. If support is requested for costs beyond initial award, or for use on activities or materials not included in approved proposals, the project sponsor must seek approval from the MSFT committee. The project applicant/sponsor will be responsible for managing purchases, transfers of funds, and all transactions related to approved projects

Please review MSFT webpage for information about the fund and its objectives before submitting your application.

**CSU Channel Islands
MSFT Proposed Budget
2020-2021**

Please layout in detail when various components of your plan will be complete in order to achieve key milestones. This information will be use to forecast the spending of MSFT within the fiscal year.
PS: all purchases/services need to be received and billed to CI before June 30th to account for the current fiscal year.

SAMPLE

Project or Acitivity Title

**Total Requested
\$\$**

Chemistry Laboratory Instrumataion Refresh

\$452,000

MSFT Planning Budget Calendar 2020-2021

Items or services requested to be funded	July 2020 -Period 1	August 2020-Period 2	September 2020 -Period 3	October 2020 -Period 4	November 2020 -Period 5	December 2020 -Period 6	January 2021 -Period 7	February 2021 -Period 8	March 2021 -Period 9	April 2021 -Period 10	May 2021 -Period 11	June 2021-Period 12	Grand Total
Purchase of UPS Power Conditioner				\$ 9,000.00									\$ 9,000.00
Purchase Glove Box			\$ 42,000.00										\$ 42,000.00
Purchase of Spectrohometer						\$ 156,000.00							\$ 156,000.00
Purchase of Fluorimeter							\$ 39,000.00						\$ 39,000.00
Purchase of Analytical Ultracentrifuge			\$ 198,000.00										\$ 198,000.00
Lab. Student assistant hours to set up equip.								\$ 2,000.00	###	\$ 2,000.00	###		\$ 8,000.00
Total	\$ -	\$ -	\$ 240,000.00	\$ 9,000.00	\$ -	\$ 156,000.00	\$ 39,000.00	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ -	\$ 452,000.00

CSU Channel Islands
MSFT Proposed Budget
2021-2022

Please layout in detail when various components of your plan will be complete in order to achieve key milestones. This information will be used to forecast the spending of MSFT within the fiscal year.
 PS: all purchases/services need to be received and billed to CI before June 30th to account for the current fiscal year.

Project or Activity Title

**Total Requested
 \$\$**

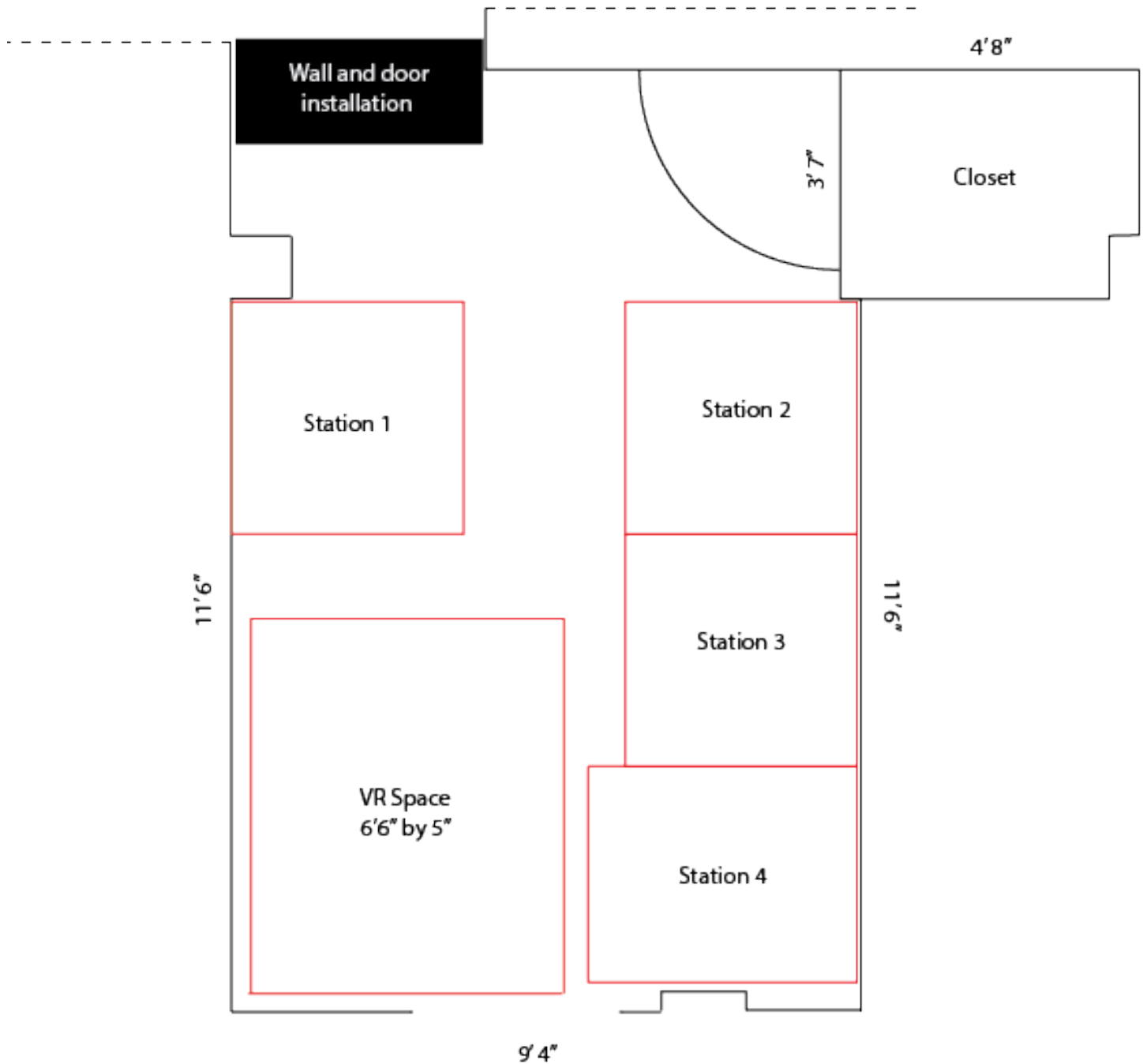
Computer Game Lab to Support Minor in Computer Gaming \$ 34,120.00

*formulas will calculate totals

MSFT Planning Budget Calendar 2021-2022

Items or services requested to be funded	July 2021 -Period 1	August 2021-Period 2	September 2021 -Period 3	October 2021 -Period 4	November 2021 -Period 5	December 2021 -Period 6	January 2022 -Period 7	February 2022 -Period 8	March 2022 -Period 9	April 2022 -Period 10	May 2022 -Period 11	June 2022-Period 12	Grand Total
4 Gaming PCs including warranty	\$ 10,000.00												\$ 10,000.00
4 Xbox consoles	\$ 1,800.00												\$ 1,800.00
4 PlayStation consoles	\$ 1,800.00												\$ 1,800.00
4 Nintendo Switch consoles	\$ 800.00												\$ 800.00
4 gaming monitors	\$ 1,500.00												\$ 1,500.00
Game Library based on course requirements	\$ 1,500.00					\$ 500.00							\$ 2,000.00
Secure Storage Cabinet / Shelving for Cabinet	\$ 300.00												\$ 300.00
2 VR headsets	\$ 800.00												\$ 800.00
Extra game controllers	\$ 400.00												\$ 400.00
8 Headphones	\$ 200.00												\$ 200.00
Staff of One for 10/hr a week at \$15/hr		\$ 300.00	\$ 1,200.00	###	\$ 1,200.00	\$ 300.00	###	\$ 1,200.00	###	\$ 1,200.00	\$ 480.00		\$ 8,580.00
Security Cables for Equipment	\$ 240.00												\$ 240.00
Desks and Chairs	\$ 700.00												\$ 700.00
Rough Estimate for Wall and Door Installation	\$ 5,000.00												\$ 5,000.00
Total	\$ 25,040.00	\$ 300.00	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00	\$ 800.00	\$ 300.00	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00	\$ 480.00	\$ -	\$ 34,120.00

Solano Hall 2nd Floor Hallway



Rm 2167