

Artist Minigrant Application
Project Title: VR headset Purchase for Sound Engineering
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To the director of the Miller Arts Scholars, Professor Michael Rasbury, My name is Kaiming Cheng and I am a four-year double majoring in Music and Computer Science. I am requesting funding from the Miller Arts Scholars Minigrant Program in order to support the cost of the VR headset purchase for my distinguished major project in Music and Computer Science this academic year.

Project Description:

With the advent of immersive computer-based rendered technologies, virtual reality adds on numerous possibility in a variety of applications ranging from medical treatment to creative art. For music composition, most tools nowadays are restricted in a two-dimensional working space, either using music sheet, some notation software or using Digital Audio Workstation (DAW) on the plain computer screen. All of these methods require great amount of music theory knowledge for user to make their music, thus build significant barrier for mass public to create their own art. The goal of this project is to explore the interaction design and musical engagement in this virtual, three-dimensional environment where user with no musical background can produce great sound, just like drawing a picture in this empty space. The control of virtual musical instruments and real-time composing in this three-dimensional environment creates freedom for everyone to join in the music arena and enables endless sound creation.

After working with Professor Dahl and Professor Reid, I have a working beta version software where user can pick an instrument from Ableton library, and play chromatic scale by simply waving their VR controller (<https://www.youtube.com/watch?v=31B7E6eqAWE&t=16s>). Unfortunately, my original VR headset was broken. With the help of the Miller Arts Scholars Minigrant Program, I would be able to purchase a fully-functioned VR headset, and add more functionalities and various novel human computer interactions on my project.

Anticipated Timeline:

Feb 2019: Demonstrating my project on the National Student Electronic Music Event
May 2019: Final Presentation on DMP

Budget:

HTC Vive PRO Headset Standalone Headset —\$799

While this budget does exceed the \$500 limit on the Art Scholar Minigrant Program, I am willing and able to supplement the remaining \$299 that is not covered.

Thank you for your time and consideration.