Makerspace Proposal

Recognizing that our teaching candidates need to be technologically proficient to provide the best supportive instructional environment for their future students, a few years ago the College of Education embarked on an Apple iPad initiative. The project was to provide all our undergraduate majors with an iPad that could be used to learn the latest apps and tools that can be used to provide quality instruction. We received several donations to make this a reality and this initiative has been a tremendous success. As our candidates begin their careers, not only are they able to fully integrate technology into their own teaching, but they also provide professional development and conference presentations to share their knowledge with others. When the pandemic hit, they were able to easily transition to different modes of teaching and were school-wide supports for online instruction.

Today, we seek your financial assistance with another major project that will impact students. As technology continues to rapidly advance, teachers need to prepare their students for jobs that do not yet exist. Well trained teachers, in turn, train students to creatively solve problems, collaborate and communicate, and persevere to find solutions. These skills are the foundation for the education of the future and imperative for the creation of our College of Education Makerspace. We currently have a Makerspace with things like 3D printing, laser engraving, sewing and embroidery, Cricut and sublimination printing, a video center, a music center, drones virtual reality goggles, Raspberry Pi computer devices, robotics, a variety of special education adaptive curriculum items, and more (see pictures below).

Now, we would like to expand the Makerspace into a second area to complete a full range of options. This will allow us to employ a variety of new tools. We have already found funding and purchased a Computer Numeric Control (CNC) machine, a plasma cutter, a milling machine, a drill press, and a sandblaster (see pictures below). Unfortunately, we do not have the ability to set them up because the classroom space we have available will not support these tools. We need to make sure that the space adheres to building codes and safety measures. Specially, we need to do things like add an outside door, install a fire suppression system, build a vent hood, install some higher amperage outlets, put in some Internet lines, add a vacuum cleaner system, install new industrial flooring, install a separate HVAC for the room so dust will not be a problem in other classrooms, and adjust some plumbing. We would also like to add some tools that would round out the space including a gas welding outfit, an arc welding outfit, a joiner/planer for wood, a shear brake and roller for sheet metal, a cold saw, a table saw, a wood lathe, a band saw, a miter saw, a spray paint booth, a router, a variety of hand tools, and software applications such as AutoCAD. Not only would this be important to our current students, but my goal is to expand our program offerings to include a career and technical education certification program for future teachers.

Makerspaces reflect a deep commitment to excellence, and we would greatly appreciate your support. Thank you for considering this proposal to create a Makerspace extension classroom. We are grateful for the opportunity to present this proposal to you now and can discuss it with you at your convenience. Emily Lim Boewadt can follow up with you on this proposal, to answer any questions, and to see if we might find time to discuss this opportunity. With your continued support, we look forward to future accomplishments and to even more amazing results for Makerspace. Thank you for all you have done and will continue to do for the College of Education and its past, current, and future students.

Respectfully submitted,

Joseph Peters

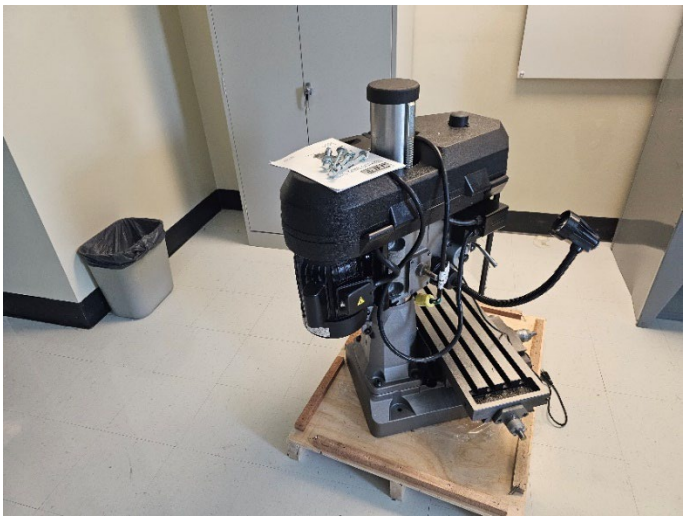
Joseph Peters, Dean

Classroom for the Makerspace Extension (Kilpatrick 136)

Equipment Already Purchased for Makerspace Expansion

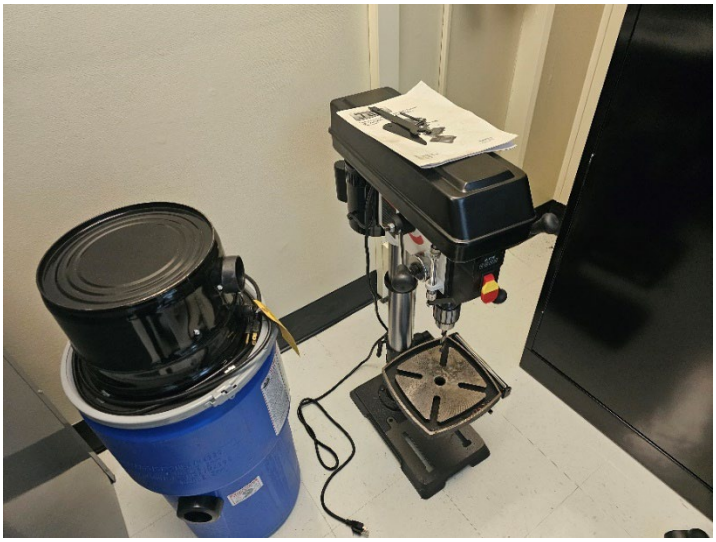
CNC Machine

Plasma Cutter



Milling Machine

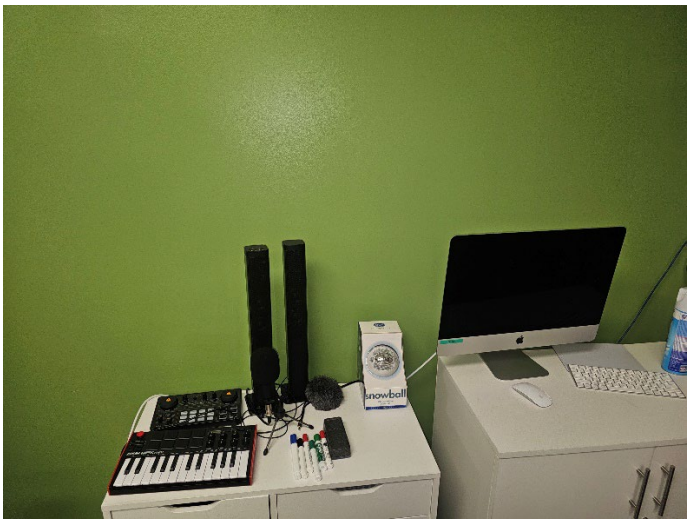
Sandblaster



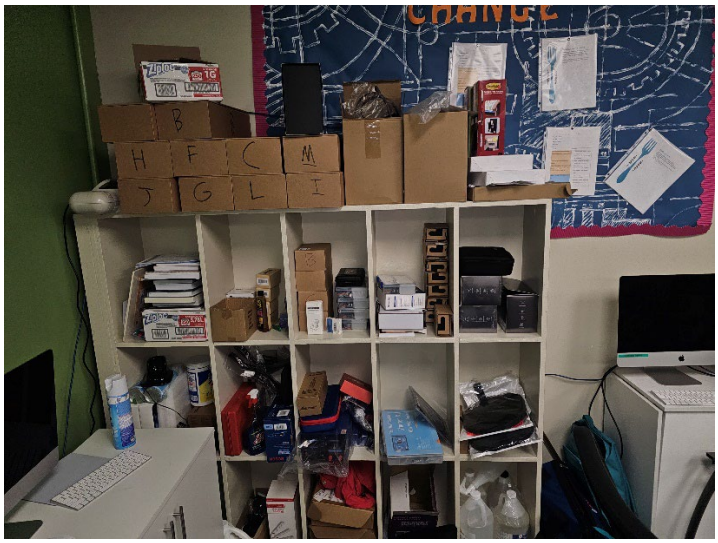
Drill Press

Photos from Current Makerspace

Cricut Materials Cutter



Music Center



Drones, Virtual Reality Goggles, Software Applications, and More

Sewing Center

T-Shirt and Vinyl Press

Large 3D Printer and Resin Printers

3D Printers and 3D Scanner

Laminator

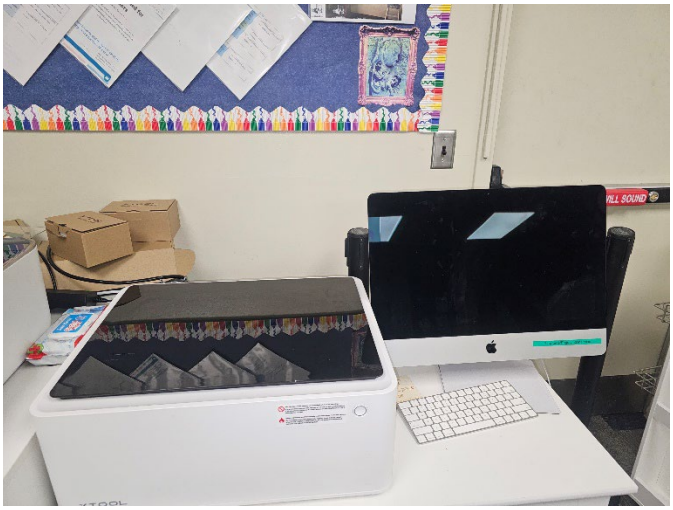
Interactive Teaching Board (Internet Capable)

Poster Printer

Laser Cutter & Engraver

Sewing & Embroidery Center

Photography Center



X Tool Materials Engraver/Cutter