

UNIVERSITY OF LOUISIANA
AT LAFAYETTE

STEP Committee
Technology Fee Application

Percussion Controllers
Integrating Percussion and Music Media Programs

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ABSTRACT

The purchase of three percussion controllers and auxiliary equipment is proposed to increase synergy between the School of Music's Percussion and Music Media departments. These systems will allow percussion students to develop new techniques in the practice rooms, go deeper into electronic music production in the recording studios, and to incorporate contemporary sounds and performance methods in ensembles. In addition to creating new opportunities for percussion students, it will also benefit the rest of the music students with whom they record and perform.

DESCRIPTION

a. Purpose of the grant and impact to student body as a whole

The Music Media and Percussion concentrations are among the largest and most active in the School of Music. Approximately half of the percussion students are music media majors. Their colleagues who play keyboards are at an advantage when working in electronic studios, since the rooms are equipped with piano-style controllers. Our percussion students do not presently have a way to incorporate their performing skills when working with synthesizers, and are therefore limited to what they can accomplish. In addition to their individual study and projects, the proposed systems will be used to incorporate electronics into performing groups.

The goal of the grant is to equip two practice rooms in the School of Music's percussion wing and one of the recording studios with electronic percussion systems. This will benefit students in two main areas. First, it will allow percussion students to learn how to use electronic instruments, and to incorporate them in performing groups, adding new tone qualities and instrument sounds during rehearsals and performances in groups such as the front line of the Marching Band, Percussion Ensemble, the Steel Drum Band, Brazilian Ensemble, Afro-Caribbean Ensemble, Jazz Combos, and Jazz Ensemble, and would make it possible to create an Electronic Instrument Ensemble to meet the needs of media and jazz major percussionists. Many of today's leading marching ensembles and other university and professional groups use sound reinforcement and electronic instruments. The proposed equipment would help prepare students in contemporary performance practices. Music Media majors, who comprise approximately half of the percussion majors, generally have more technology skills, and the use of the proposed

systems in practice and ensembles would give those with less technological understanding an excellent opportunity to learn from their peers how to use the equipment.

Secondly, in addition to using the systems when performing, the percussion students will also be able to apply their stick technique to recording projects in the studios. Recording Studio B has advanced synthesis capabilities, but percussion students are presently limited to programming sounds and beats using a piano-style keyboard, which does not allow them to use their abilities in a natural playing style with sticks. This equipment would help them work at a higher level in many core classes, including MUS276 (Music Technology), MUS277 (Synthesis and Sequencing), MUS 376 and 377 (Recording Techniques I and II), and MUS438 and 439 (Film Scoring I and II). Students will also be able to use the equipment to benefit their colleagues' recording projects, and get experience that they will be able to apply to playing in groups and recording in their future careers.

The percussion controllers proposed here are of two types. The first (MalletKAT) is laid out like a vibraphone with mallets:

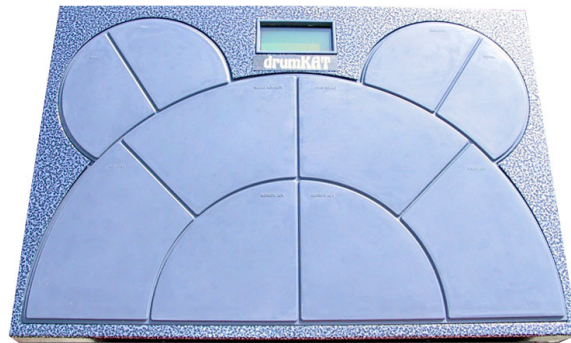


MalletKAT

All percussion students study mallet instruments as part of their lessons, and as they advance learn to play with two sticks in each hand. The MalletKAT is an electronic controller instrument covering a three-octave range, and offers students the opportunity to apply their mallet technique to standard and new repertoire with a wide variety of acoustic instrument and synthesizer tones. It would be of use in many of the School of Music's ensembles for novel sounds, as well as to cover parts for which there might not be an available musician. For example, a percussionist might play an electric bass line on it when there is no bass player available.

The second type of controller is laid out in a unique arrangement. Two controllers of this type are requested, one for a practice room in the percussion wing, and the other for Recording Studio B. The DrumKAT has 10 pads, each can be assigned to a different drum sound, or any other sampled sound. For example, one pad can be assigned to play a snare drum sound, another a cymbal, another a cowbell or conga drum. A kick drum pedal and a high hat pedal will be plugged into the device to allow students to use their feet as

well as sticks in their hands. The arrangement of pads is somewhat like half of a steel drum:



DrumKAT

Controllers of this type open up a wide range of sounds for performers onstage and in the studio. The DrumKAT can be played alone on a stand or table, and used in studio sessions to program beats or add auxiliary sounds. In addition, it can be integrated into an acoustic drum set or other percussion setup. In this application drum sounds are typically played on the drum set, and the electronic controller used to trigger other sounds, such as bells, hand claps, and other sound effects. We would like our students to learn to use such devices in both situations, since it provides new challenges, sparks creativity, and develops techniques that they will be expected to have in the future when they begin their professional careers.

The MalletKAT has a synthesizer built into it. Since the DrumKAT does not have an internal synthesizer, an Alesis drum synthesizer module is included for each unit. The Alesis DM10 was chosen since it is the only module in its price range that allows players to upload their own samples, opening up an infinite variety of sounds. Student composers and sound developers will be able to create their own sounds and connect the DM10 via a USB cable to their laptops, and then transfer their sounds into the unit's memory.

Instrument amplifiers are included in order to amplify the MalletKAT and DrumKAT during practice, rehearsal, and performance. A heavy duty cart will make it possible to move the MalletKAT into position on the field for participation in the Marching Band, as well as move it between the percussion wing for rehearsals and performances with other groups. The necessary cables, pedals, mounts, cases, and stage stands complete the package.

b. Projected lifetime of enhancement

The MalletKAT and DrumKAT controllers are rugged and should last 10 years. The synthesizer modules will not be physically touched as much as the controllers, and while their sounds may be dated over time, they will continue to fulfill their function indefinitely. The amplifiers and hardware are projected to last at least 5 years.

c. Person(s) responsible

i. Implementation

Robert Willey (coordinator of Music Media division) will oversee the project and integrate some of the equipment into Recording Studio B and Music Media classes. Troy Breaux (Percussion program coordinator) will integrate the equipment into practice, lessons, and performing groups.

II. Installation

Robert Willey will install one of the DrumDATs, its stand, pedals, and sound module in Recording Studio B. Missy Dupreast (graduate assistant) will help students set up the equipment in the percussion wing.

III. Maintenance

Any required maintenance on the controllers will be done by the manufacturer.

IV. Operation

Percussion and Music Media students will be trained in workshops and classes, after which they will be the ones to operate the equipment.

V. Training

Robert Willey has extensive experience with electronic controllers and software applications. He will offer workshops for students on the use of the equipment.

Troy Breaux is a percussionist, director, and educator who will teach students how to apply the technology to musical applications.

Missy Dupreast is a live sound engineer and graduate assistant in the Music Media and Percussion areas. She and future graduate students will assist in showing students how the equipment works.

BUDGET

1. Equipment	\$ 8,765.57
2. Software	\$ 919.93
3. Supplies	\$ 0
4. Maintenance	\$ 0
5. Personnel	\$ 0
6. Other	\$ 0
TOTAL	\$ 9,685.50

Please see budget details on attached spreadsheet.

ADDITIONAL INFORMATION

The percussion wing is open with key card access to percussion students. The School of Music has video surveillance cameras to monitor access and movement of equipment.

PREVIOUSLY FUNDED STEP GRANTS

Previous grants detailed online at <http://willshare.com/willeyrk/grants>

“Recording Microphones for Auditorium”, 1/10, \$6,940.

“Server for School of Music”, 1/10, \$5,303.

“Performing and Live Recording System”, 1/09, \$5,185.

"Recording Studio Upgrade: Developing System Input and Output", 7/08, \$11,881, provided array of microphones to increase the number of tracks that can be recorded, and to experience how microphone selection and matching with preamp affect the sound.

"CD Recording System for Angelle Hall", 1/08, \$1,350. Stereo recording setup for auditorium.

"School of Music Resource Center Upgrade", 7/07, \$21,638.

"School of Music Pro Tools Recording System", 7/06, major renovation of recording studio facility creating professional 24-track digital audio recording system, \$41,338. Created Pro Tools HD recording system, which will be compatible with the proposed system in the current grant proposal.

"School of Music Resource Center Upgrade", 7/06, software to create web sites, piano instruction, software, wireless connectivity, administration software, ethernet cabling, Reason synthesis software, \$4,657.

"School of Music Resource Center Upgrade", 1/06, upgrade software and hardware, \$6,055.

"School of Music Resource Center Upgrade", 7/05, upgrade software and hardware, \$4,055

“Resource Center Upgrade”, 1/04, upgrade workstations, server, video transfer, and DVD authoring, \$4,902.