

Orbotix Music Maker App

Client

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Description

Create an app that uses Sphero as a controller to make music. Think along the lines of Tap Tap Revenge or Guitar Hero, and pull data from Sphero's gyro and accelerometer to customize the game for Sphero. Sphero provides three axis of gyroscopic data and three axis of accelerometer data. Users should be able to load in their favorite tracks and use gestures and movements holding Sphero in their hand to hit notes. Students may wish to research existing Theremin style instrument designs for inspiration on the details of their approach. At the end of a jam, users can share results and challenge friends to complete the same song. This project is one of a suite of apps we are interested in having developed, other apps of interest can be found at: <https://developer.gosphero.com/bounties> .

Technology

This app will be for iOS or Android or both. Typically people use objective C for an iOS app or Java for an android app, however, C++/C are also possible. There are many technology choices that can be made by the team. Use of the Orbotix SDK is expected <https://developer.gosphero.com/> . Significant portions of the work will be involved in GUI development as well as synchronization of music to the controller gesture engine to be developed. The communications to the sphero robot / controller are bluetooth so some exposure to bluetooth will be included although abstracted in the SDK.

Requirements

- App must work on iOS **or** Android
- App must have good artwork and sound where needed
- App must pass level 2 of QA
- App must be fun
- App is yours and we will market it! (press, downloads, fame, fortune)

Student Benefits

- You will gain experience with iOS or Android
- App is yours and we will market it! (press, downloads, fame, fortune)
- A cash reward in your name will be presented to the School of Mines to support the program
- Gain experience with the sphero robotics platform and various sensor technologies

Location

Flexible. Interaction with Orbotix are expected to be through our normal developer support channels. Headquarters is in Boulder if in person interaction is desired.