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# **Teamwork (2013)**

**for athletic band  
with audience participation  
via mobile phone**

## **Performance Guide**

## **About the Piece**

In Teamwork, an athletic band plays their team's fight song at a sports game while the fans in the stadium use their mobile phones to continuously change the tempo and the dynamics of the performance. This creates a novel way for fans to engage with the band and with each other as they hear their team's music.

TeamWork uses massMobile, a smartphone participation system developed at the Georgia Tech Center for Music Technology. Its development was supported in part by a grant from the National Science Foundation as part of a larger research project on musical improvisation in performance and education (NSF CreativeIT #0855758). It was written for the Georgia Tech Athletic Bands.

## **Duration**

Duration is flexible. We expect you to play the fight song in a loop several times to stretch the performance to somewhere between 2 and 4 minutes.

## **Instrumentation**

Any size athletic band (pep band, marching band, etc.) can play Teamwork. Play your team's fight song as arranged for your ensemble.

## **Technical requirements**

Each participating audience member must have a computing device (e.g. smartphone, tablet, computer) with a recent web browser connected to the Internet (via WiFi, 3G, or 4G). We do not currently support Windows Phone, Blackberry, or Internet Explorer.

A Mac or Windows laptop (also connected to the Internet) is required to run the TeamWork software that manages the performance and creates the video projection for the scoreboard.

The sports arena must have a scoreboard visible to both the audience and the band that is capable of connecting to the laptop computer as an external display.

## Audience Participation Instructions

Please contact us for the URL and QR code to supply to audience members to participate. (See contact info at the end of this document.)

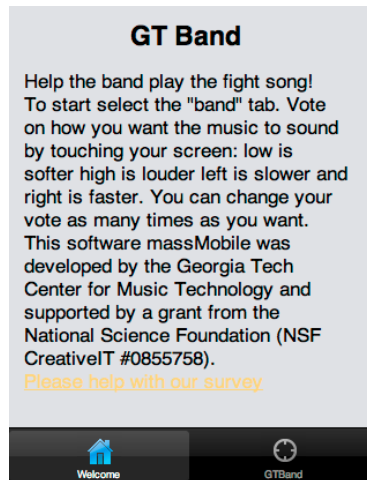
## The Performance

### *Introduction*

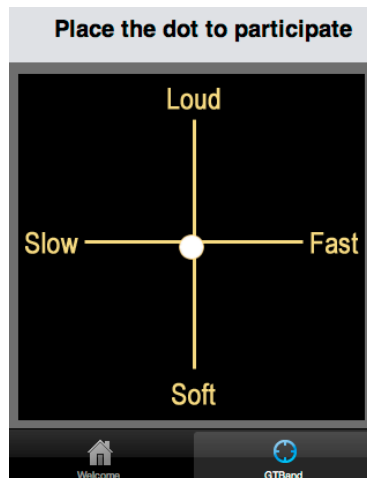
Explain to the fans that they will help the athletic band play the team's fight song by changing its volume and tempo. Explain how to load the web application on their computing devices, and display to them the participation URL on the scoreboard.

### *Audience Interface*

When fans open the web application on their devices, they will see a welcome page like this:



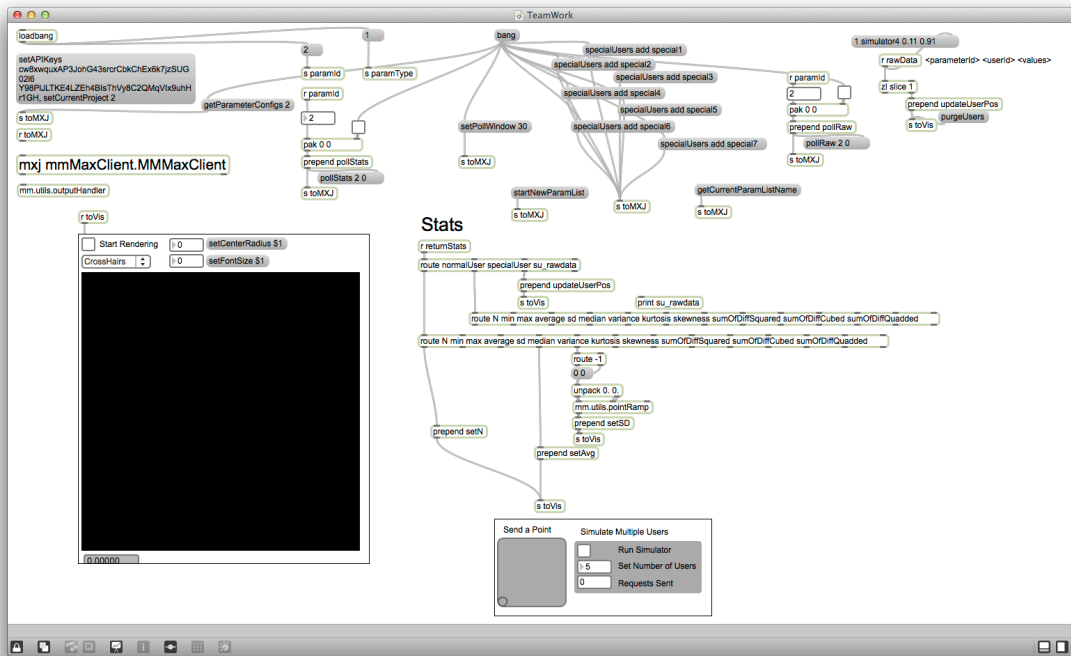
When they click the Participate tab, they'll see the main interface:



They click or touch a point on the screen to indicate how slow or fast (x axis) and how soft or loud (y axis) they want the music to be. They can change their “vote” at any time (and as many times as they want) during the performance.

### Laptop Software

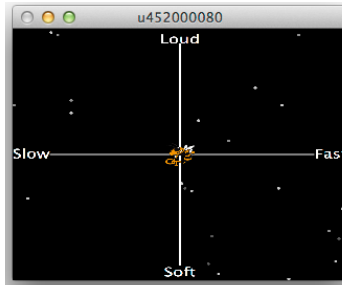
The laptop software has controls to start the performance, to simulate audience data (useful for rehearsals), and to start the video projection for the scoreboard.



The video projection has two modes (see the popup menu above the black square): URL mode shows the participation URL and CrossHairs mode shows the votes coming in from the audience. To start the projection, hit the “start rendering” button and also the “bang” button at the top center of the window.

In CrossHairs mode, you’ll see an icon (Georgia Tech’s mascot, “Buzz”) that shows the current weighted median vote of all audience members along with a grey oval indicating the variance / deviation in audience votes. (The bigger the oval, the less agreement among audience members.) You’ll also see a white dot representing the latest vote from each individual audience member. If audience members don’t vote for a while, their dot will gradually fade away.

To show the video projection on the external scoreboard, drag the projection window to the external display and press escape to force it to display in full-screen mode.



To simulate a large audience using the app (for practice purposes), click the “run simulator” button. To change the number of simulated audience members participating, click on the “set number of users” box, type in a new number, and press enter.

### *The Fight Song*

For the performance itself, play your team’s fight song in a loop for 2-4 minutes. For a smaller band (e.g. a pep band), have the drum set player watch the scoreboard closely and the band follow the drummer for both volume and tempo. For a larger band (e.g. a marching band), have the conductor / drum major watch the scoreboard and set volume and tempo based on conducting gestures. If there are multiple conductors / drum majors, have the remaining ones follow the “leader” who is watching the scoreboard.

When watching the scoreboard, the icon indicating the median volume and tempo is the only important indicator to watch. Ignore everything else.

### *Survey*

After the performance, thank fans for their participation and ask them to go back to the welcome screen on the web application to complete a short survey about their experience.

## **Optional Components**

### ***Featured Fans***

If you expect to have more than 500 fans participate in Teamwork, it will no longer be technically feasible to display individual dots for each fan’s current vote. In addition to the icon showing the weighted median of the votes, we also suggest that you use the “featured fans” component of Teamwork to encourage more structured participation by fans.

### *Invite special fans to be featured*

Before you perform Teamwork, invite between 5 and 10 special fans to be featured in the performance. You can select celebrity fans or randomly select fans by seat assignment or contest. Have them identify themselves in advance of the performance.

### *Set them up with special participation URLs*

Give each fan a special participation URL that sets a “user” parameter to a special username. Please contact us (see end of this document) for assistance in creating these special URLs and in configuring the TeamWork software to display individual white dots for only these specially identified users (rather than all fans).

### *Introduce them to the audience*

Be sure to introduce your featured fans to the crowd during the introduction to the performance. Ask everyone to watch what these featured fans do (each person is represented by a dot on the scoreboard) and encourage them to pick a featured fan to follow.

### ***Custom Interface Elements***

We would be happy to change the special icon on the scoreboard into your own team’s mascot and to customize the welcome text on the fan application.

### ***Mascot Involvement***

Give your team’s mascot signs with the words “fast,” “slow,” “loud”, and “soft” and ask them to “conduct” the crowd’s participation by holding up different signs at different times during the performance.

### **Send us your thoughts and feedback**

We are always happy to help with technical support, troubleshooting, and customization. We also want to hear about your experiences using Teamwork at your sporting event.

Contact us at:

<http://www.jasonfreeman.net/contact/>