PIG PARTY

ECE Capstone Design Project, Spring'13
Praveen Chekuri, Zac Brown,
Adnan Miah, Pradnya Pisal

Website:**http://www.pchekuri.com/seniordesign/**
Advisor: Dr. Parashar

Introduction

Online and mobile gaming is quickly growing in the world of techonology, as study has shown that the U.S gaming population has tripled in the past three years. We wanted to build on this idea of gaming and take it a step further by integrating both the phone and computer devices together. The main purpose of Pig Party is to present gamers with a series of addicting mini games showcasing all of the phone's features.

Motivation

The main issue residing in mobile gaming is the limited screen space users are given. For this reason, allowing the computer screen to be the primary screen is both enriching and beneficial to the gamer. It not only provides gamers with a larger display but the screen will not be hindered by the user's thumbs. This is where the phone comes into play. The main advantage of having a phone as the controller is that it provides an entirely new hardware. The touch screen is just one layer of the interaction. Unlike in a standard controller where buttons are in set positions, the touch screen provides a gateway for many different button configurations. It enhances the gaming experience by allowing for animation and interaction between both screens.

Design

The gaming platform for our mini games was built using the Android SDK while the computer side of the gaming interface was written purely in Javascript and HTML/CSS. The connection between the two devices was achieved through the TCP server and sockets. Hardware such as the accelerometer was implemented into our games to deliver an entirely new way for gamers to interact with the traditional console gaming system. We went far beyond the phone screen's simple button pushing functionality by integrating finger swiping, drawing shapes, pinch & zoom into our games.

Conclusion

The main goal of this capstone was to introduce a whole new concept of gaming through Pig Party which we hope will be the stepping stone to further innovations in the gaming world.