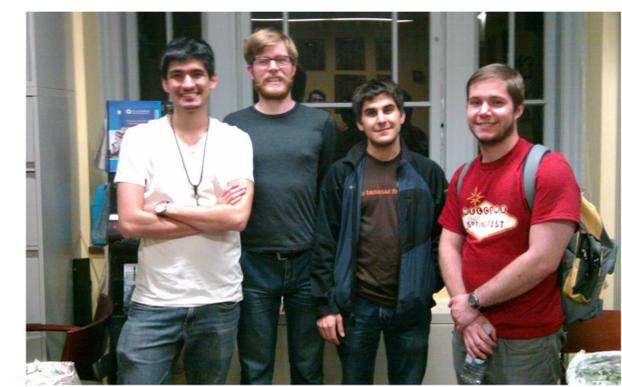




ALAN GERBER ■ EVAN TOBAC  
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<http://www.ece.cmu.edu/~ece549/spring10/team10/index.html>

# MOTIVATION

Random population studies\* have determined that 1 in 23 people experience some form of Synesthesia, the blending of one's senses. However, there are various different forms a person can experience: seeing tastes, hearing smells....

This project will allow a consistent source of Synesthesia to any user: the conversion of color into sound.

\*Simner J, Mulvenna C, Sagiv N, et al. (2006). "Synaesthesia: the prevalence of atypical cross-modal experiences"

# DEVELOPMENT ENVIRONMENT



## HARDWARE

Arduino Duemilanove  
 Android Smartphone  
 Color Sensor ADJD-S371

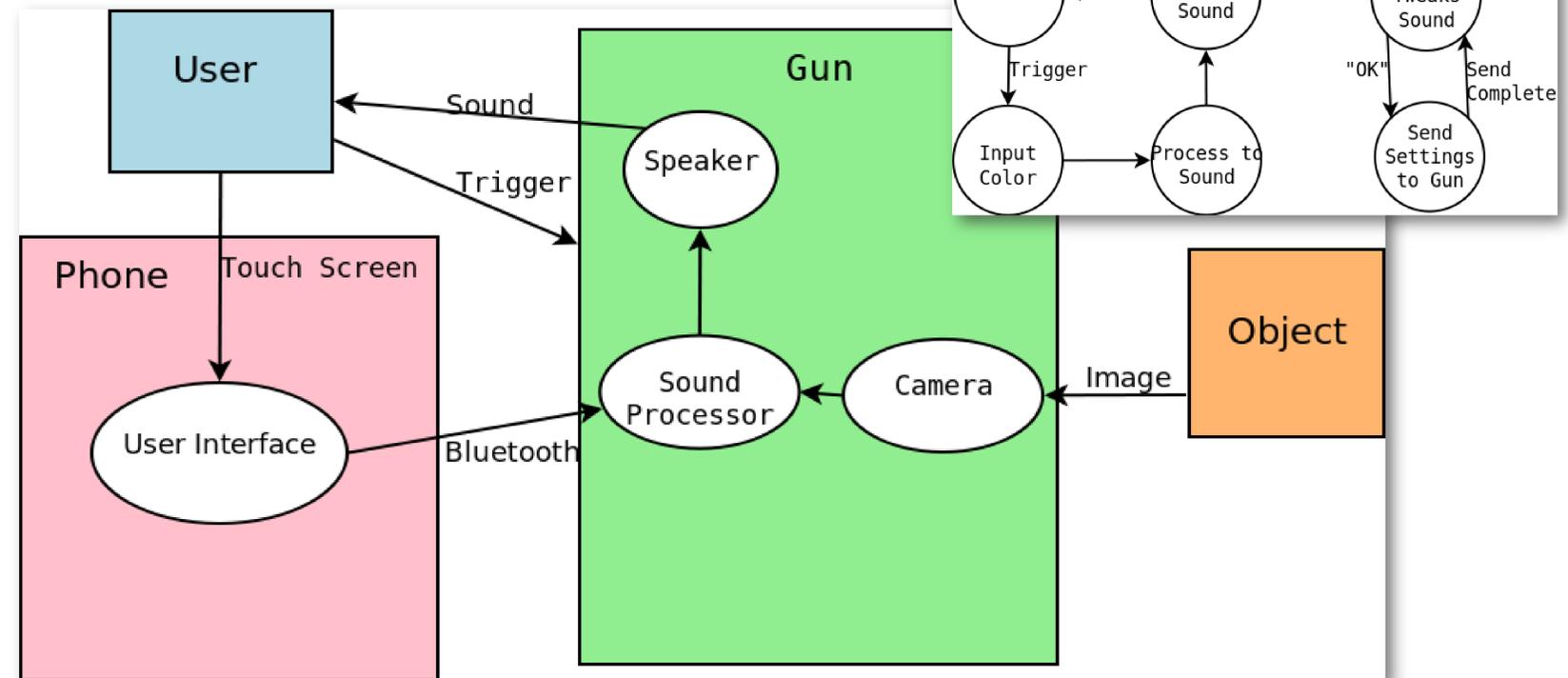
## PROTOCOL

Bluetooth

## SOFTWARE

Anroid OS  
 Arduino Development Environment

# ARCHITECTURE



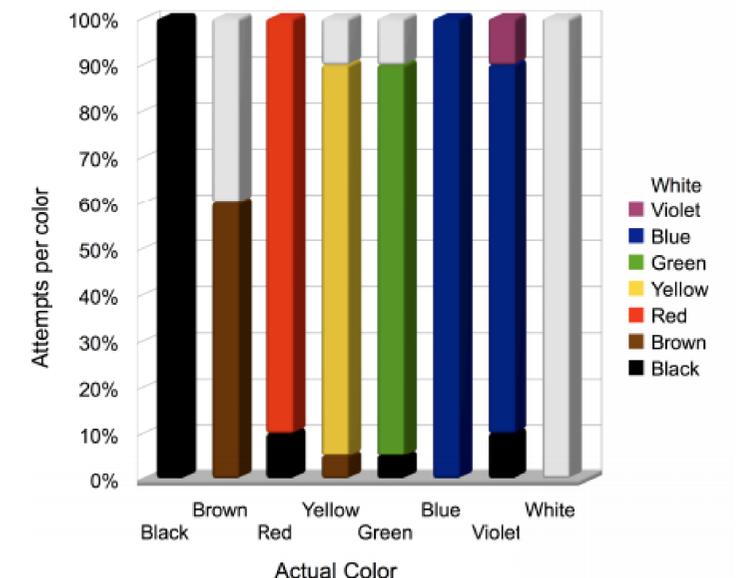
# RESULTS

Detects 8 colors and can utilize 11 tones as the root note for both Major and Minor scales



Indicates where each color is detected as the gun is run across this picture of the color spectrum

Color Confusion for 10 Attempts



**Hardest color to detect: Violet**

**Easiest: Black/White/Blue**

**Average Detection Speed: 0.47 seconds**