Proximity Detection for Autism Research

Team 13 | Baldwin Chang (CSE), Anthony Foley (EE), Meghan Matibag (CpE) | Advisors: Dr. Gillian Hayes & LouAnne Boyd

The main goal is to detect the proximity and orientation of autistic individuals alongside those they are interacting with, and help them be more engaging in a social setting.

Team BAM! is one of three teams dedicated to our advisor’s autism research. While our team is tasked with proximity detection, the other two teams are tasked with voice and heart rate.

Our team has been able to utilize existing technologies to build a system that determines proximity and orientation in space. We all were able to learn iOS development, as well as leverage information we learned in our machine vision course. With the results of this project, we hope to pave the way for new autism therapy methodologies that include real-time continuous feedback.

For more information: https://sites.google.com/a/uci.edu/eecs-cse-srproj-15-16/Team-TT - Contact: bpchang@uci.edu; ajfoley@uci.edu; mmatibag@uci.edu

Our Future Plans

We hope to continue working with our advisor, LouAnne, to incorporate the next phase of our project. We hope to leverage computer vision and build off research of “F-formation” to utilize spatial orientation to determine conversational groups.

(Info: http://profs.sci.univr.it/~cristanm/ssp/)

Items | Price
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Raspberry Pi | $35
Addons (SD, WiFi, Power) | $30
Estimotes | $200
Smartphone (iPhone)* | $700
Total | $960

* - We used already owned items, as our team all have iPhones