

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
New Worlds - Innovative Space Education and Outreach (7)

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## STEM OUTREACH THROUGH BALLOONING AND MOBILE DEVICES

**Abstract**

With the increased use of smartphone technology, it is possible to check the status of projects from any location at any time with a cell phone and signal. As such I have begun development of an android application that will allow users to receive real-time data from the UAHuntsville Space Hardware Club balloon missions through a smartphone. With this ability I have been able to go to local middle schools and talk to students about science and engineering while sharing with them the experience I have gained from other fields. Students who have multiple interests can lead into various stem related fields. Through the use of this application, students can ask questions of Space Hardware Club members. This creates a relationship and lasting effect between the university and primary/secondary education students in various stem fields beyond outreach events. Through talking with students in the past, I have learned that they are naturally interested in projects that produce unpredictable results.

By having other groups and/or teams use a similar method of outreach, the community is benefited because the increased stem interest at an early age increases the industry workforce over a period of time. Due to the flexibility of the program, teachers are given the resources to continue teaching stem related projects to future students.

The application that I am using to demonstrate to the students is described within my paper. In this paper, I will discuss the future goals of the application in terms of community outreach and how it can be used to promote stem education around the world, but most importantly, how we can start promoting it in our own communities.