Easy Programming With Drones

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Study Target/Focus/Purpose

This study is geared towards outreach in our community. Our outreach will focus on various student groups, starting with middle school aged students and ending at college aged students. Our goal is to expose the public to programming through flying drones and hopefully persuade them to look further into different STEAM areas. This can help spur a want to learn more about careers in the IT field.

# Description of the TAP program

TAP, GGC’s Technology Ambassador Program, is an elective course designed to enhance students’ technical, communication and leadership skills. Unlike traditional classrooms, the set up of TAP gives students the freedom to manage their work and progress. They design, plan, and execute a project from start to finish, which allows them to grow their leadership, technical, and communication skills.

# Methods

The technology we use is Codrone by Robolink. Codrone is a drone that takes commands from blocked based programming, which makes concepts such as if statements and loops easier to comprehend. Our goal is to teach our audience how to utilize this drag and drop way of programming to write commands for the Codrone.

We will attend many different types of events:

1. TAP Expo - This event will be held on campus. At the TAP Expo, there will be computers available on-site as we introduce newcomers to our demo. There will be an area where we can set up our obstacle course as well. Our audience will be college students in general.
2. Super Super Saturday Series - This will be held on campus. Unlike the TAP Expo, our audience will be middle school and high school aged girls, but the setup will be much like TAP. However. Instead of going directly into our demo, we will first teach the basics of coding.
3. Classroom demos - Our demo will take place in various classrooms on campus and our audience will be college students and faculty. We will also be teaching the basics of coding before proceeding with our demo.
4. CREATE and STaRS Research Symposium - It will be set up like a conference.
5. Atlanta Science Festival - It will be set up much like the TAP Expo, but our audience will encompass a larger group of people, ranging from little children to adults.

We are going to measure our results by counting how many visitors attended and have them fill out a short survey of the expo.

# Results

* We will give a detailed description of survey and survey results for each of the following subsections:
  + Tap Expo - The TAP Expo is designed to expose non-IT major GGC students to be interested in technology and hopefully major in IT.
  + Super Saturday Series- The Super Saturday is designed to inspire kids and teenagers of the local community to the field of IT.
  + Classroom Workshop - The classroom workshops are meant to further engage ITEC students in technology.
  + CREATE and STaRS Research Symposium - These symposiums are meant to expose all kinds of majors to technology and pique their interest.

# Discussion and Conclusion

The purpose of this study is to teach block coding to our audience to enable them to use Codrone by Robolink. Due to the different kinds of settings that our demo will take place in, the reactions to the technology will most likely vary. We aim to engage our audience in a way that will lead to further exposure of emerging technologies, as well as persuade them to take an IT-related career path.

# Acknowledgments

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