

# Applying an Interactive Learning Style to Teach Programming Fundamentals Through a Familiar Activity

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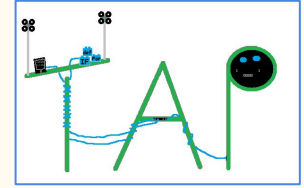
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# TAP: Technology Ambassador Program

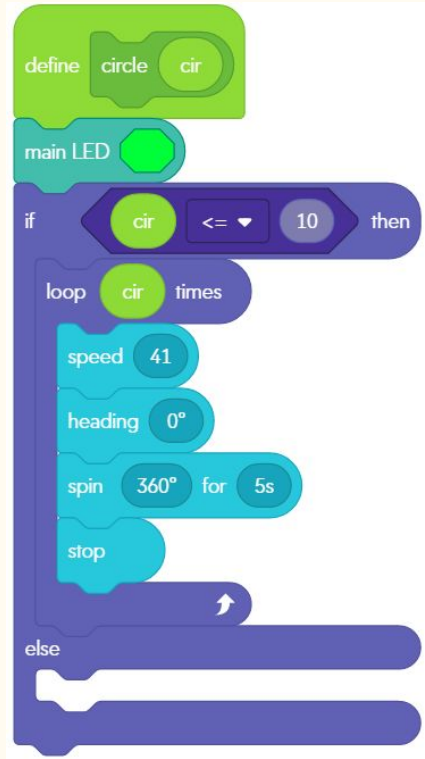


- Students in TAP develop an educational technology demo for students to promote interest in technology, and develop a workshop to provide interactive education for programming fundamentals.
- Outreach
  - Super Saturday series
  - Classroom workshops
  - TAP exposition
  - CREATE

# Goals

- Developing an easier way to teach programming fundamentals (loops, functions, if-statements)
- Spread interest, and knowledge about Information Technology
- Break down popular culture stigma around programming: (hacking scenes)

# Our Technology



Sphero Block Code for Figure 8 activity

- Simple but can be made complicated
- Has both block based and text based programming capabilities
- Has enough features to create a large variety of different activities



# Outcomes & Observations

- We received an average satisfaction rating of **4.3** for our demo at the TAP Exposition
- Our “Free Throw Challenge” had the most participation of any activity at the exposition with more than **25** students **engaged** and **interested** in it

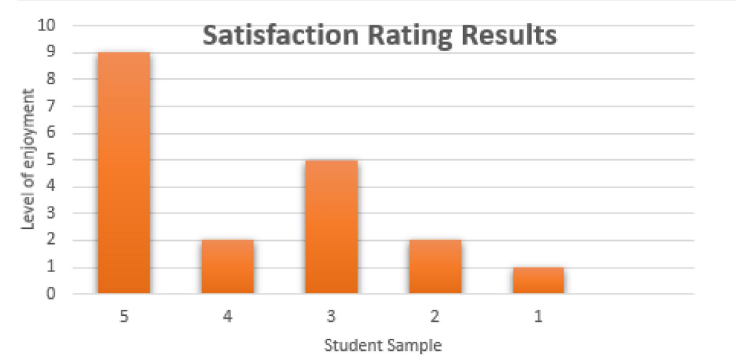


Figure 3 : Bar graph for rating on the TAP expo

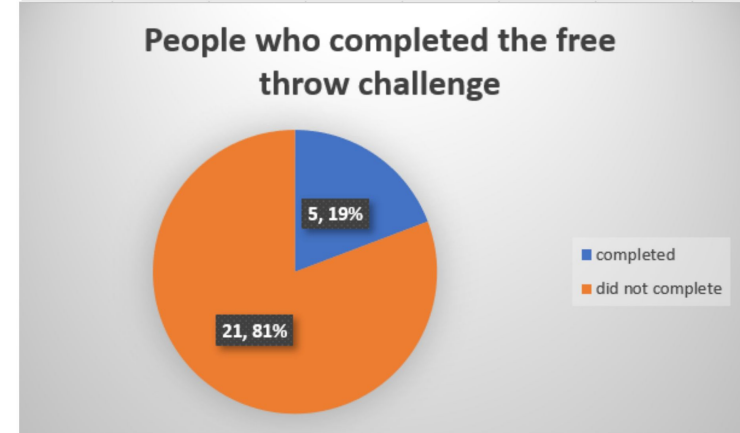


Figure 4 : Pie Chart displaying each rating in Survey

# What's Next?

- Super Saturday Series
- CREATE Symposium
- Classroom Workshops

# Classroom workshops / Super Saturday Series

- 1 hour long class focused on instruction consisting of college age students
- Break them into groups to perform “drills”
- Each drill will focus on teaching a different programming concept
- Figure eight, sprints, free throw, laps

- A demonstration/instruction session where groups of middle schoolers come to our group for 15 minutes at a time
- Split them into two groups
- One group will participate in a free throw challenge
- The other group will participate in “Sprints” where they will learn about loops



# Questions

# Thank You

## References

- [Sphero.edu](https://sphero.com/education)

## Acknowledgments

- STARS alliance