Ball Is Life / Sphero

Joel Garcia, Patrick Page, Nikki Mehdikhani, Daniel Redder

Meet the Team

- Joel Garcia, Software Developer Math focus, Senior
- Patrick Page, Systems and Security, Senior
- Nikki Mehdikhani, Enterprise Systems, Senior
- Daniel Redder, Data Analytics , Junior

So what is TAP?

- 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

Mission

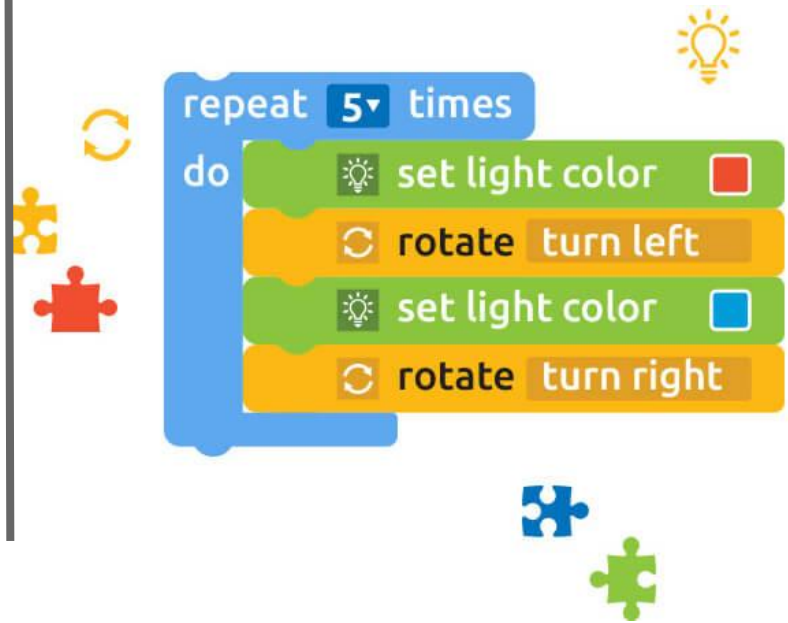
- Developing an easier way to teach programming fundamentals (loops, functions, if-statements)
- Spread interest, and knowledge about Information Technology
- Break down popular culture stigma around programming: (hacking scenes)
- Using a familiar activity to accelerate learning in programming

What do you know?

What is programming and block coding?

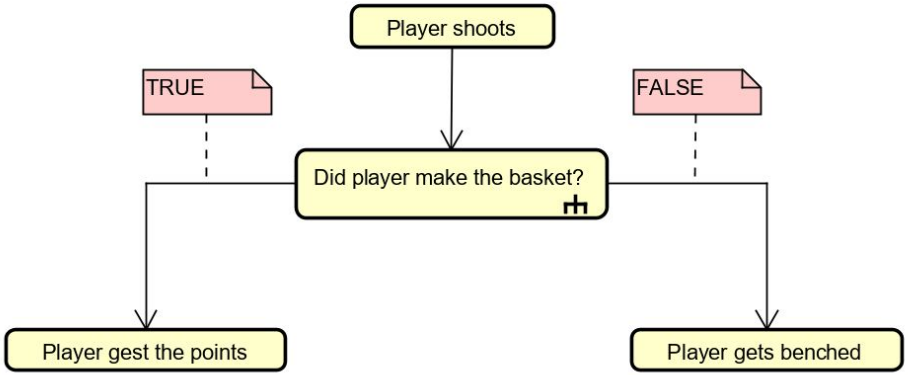
- Set of instructions for a computer to execute a certain task(s)
- Why program? Computers are faster than humans and more efficient.
- Program using programming languages (Java, C#, Python, Javascript, Ruby)
- Convert algorithms into code

- Simplified programming language.
- Great for beginners
- Drag and drop

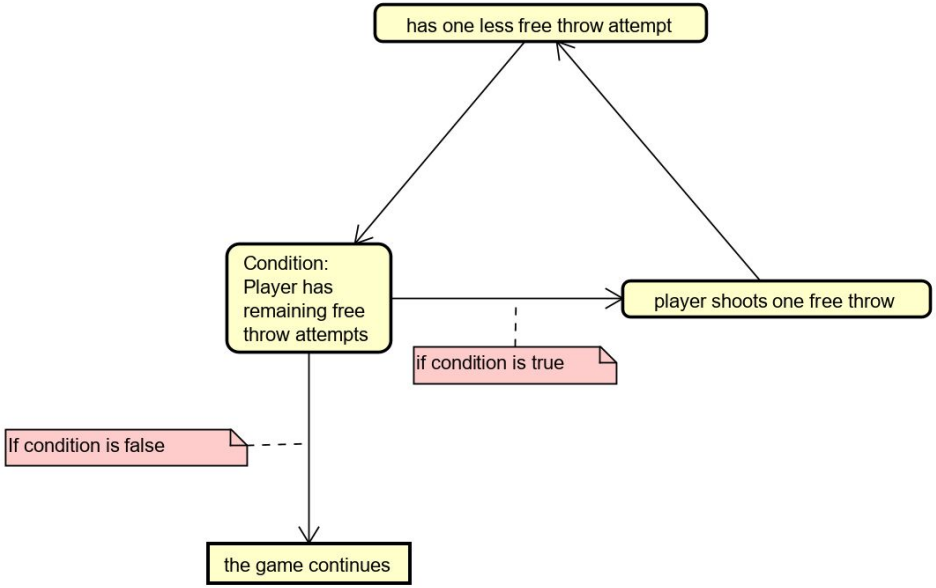


If / Else, Loops, Functions

If/Else



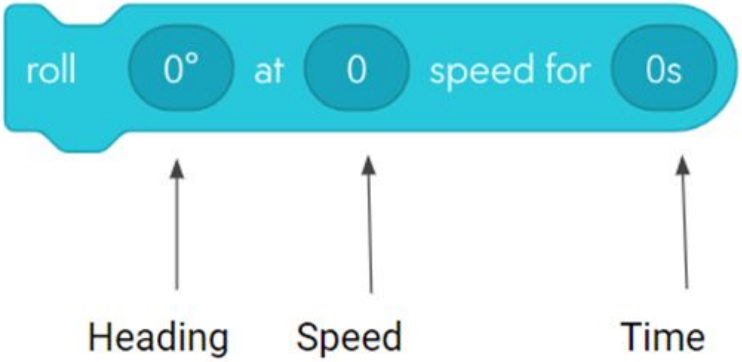
Loop



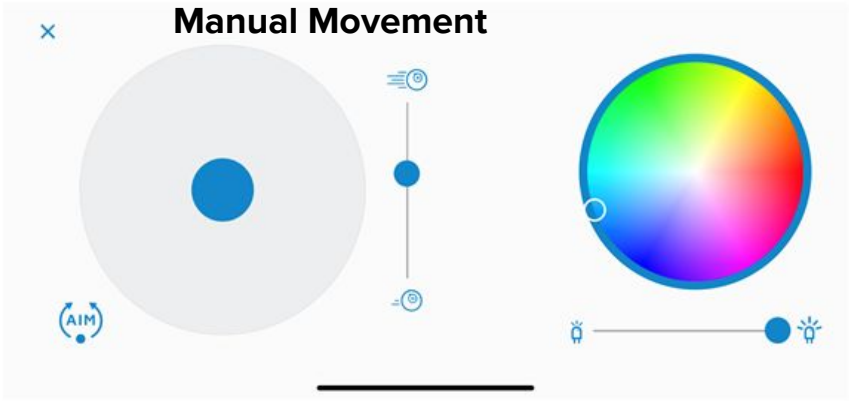
Our Technology

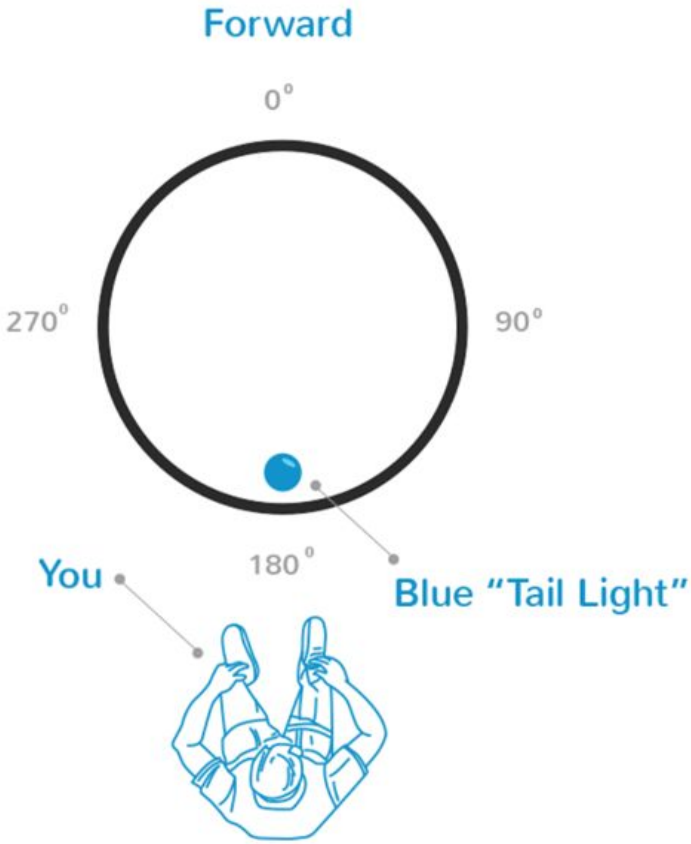
A programmable robot sphere that can spin, glow different colors, and detect whether it is falling or has hit something.

Moving with Code



Manual Movement





Split Into Groups

Sign in to your account

username or email* TAPggc

password* ballislife

Sign In

Forgot password Sign Up

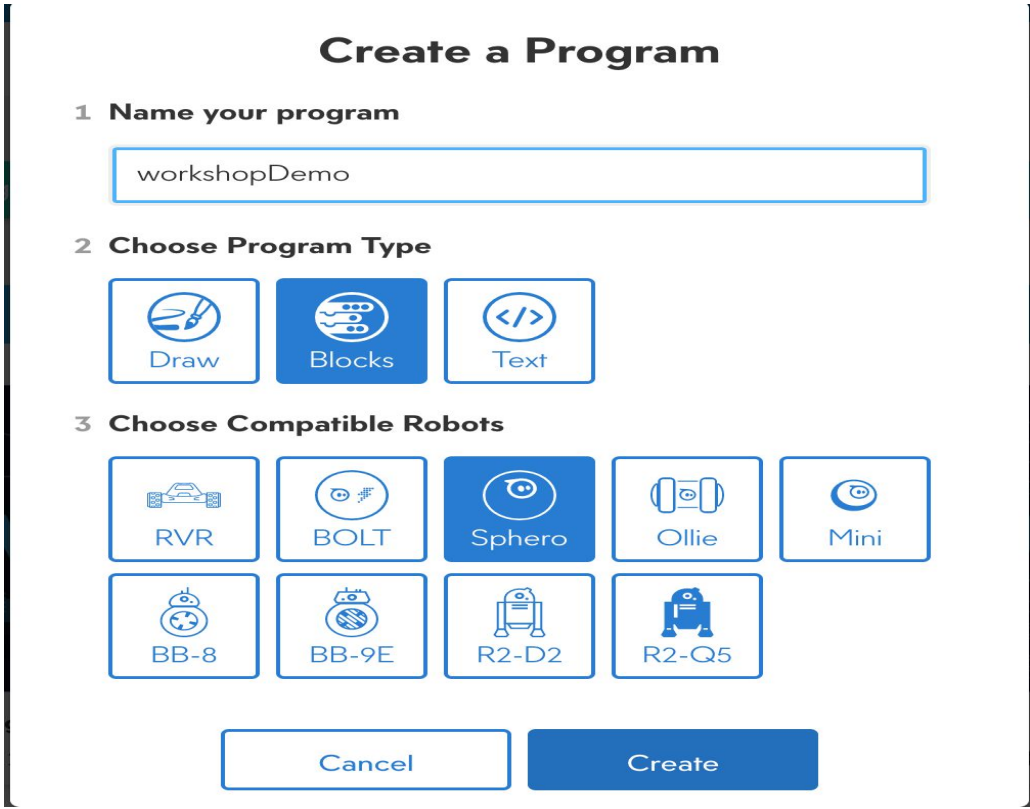
OR

Sign in with Google

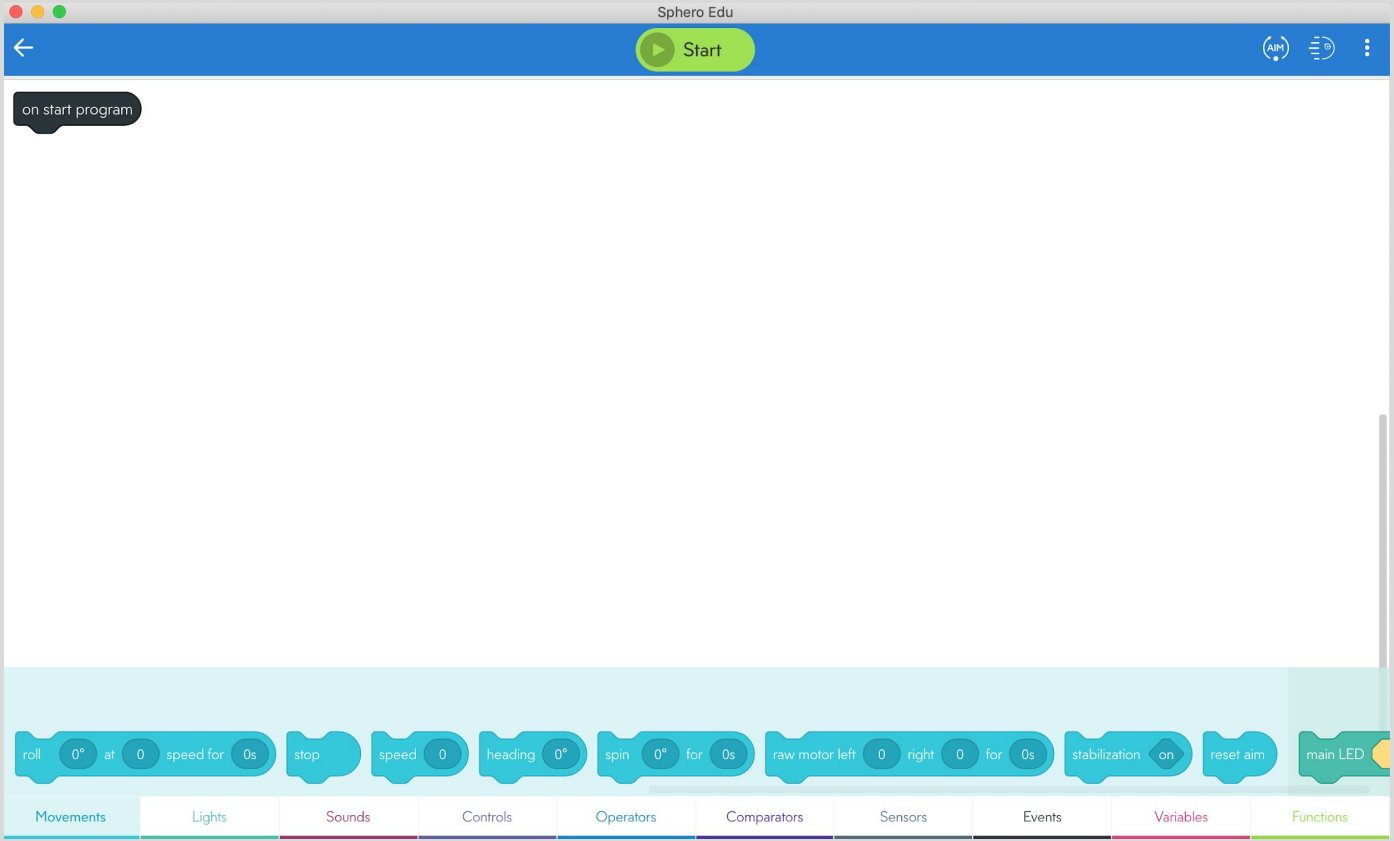
Sign in with Clever

More Information

Create a new program

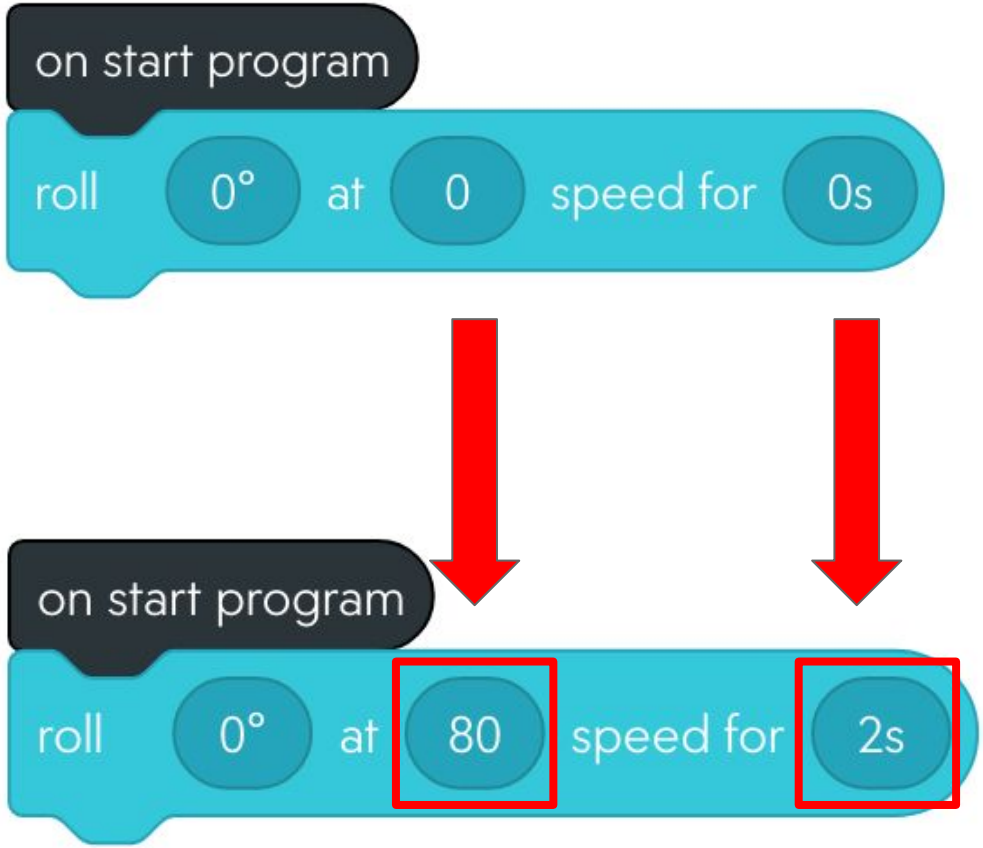


Welcome to the Canvas



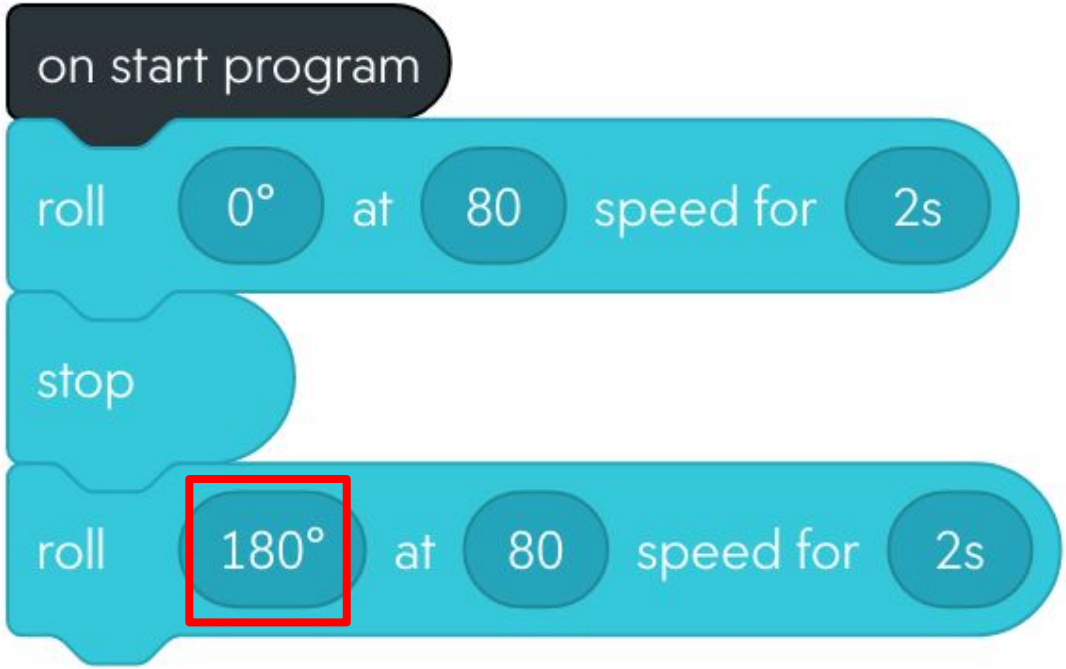
Make Sphero move Forward

- ❑ Click on movements tap
- ❑ Drag Roll function onto canvas
- ❑ Adjust parameters



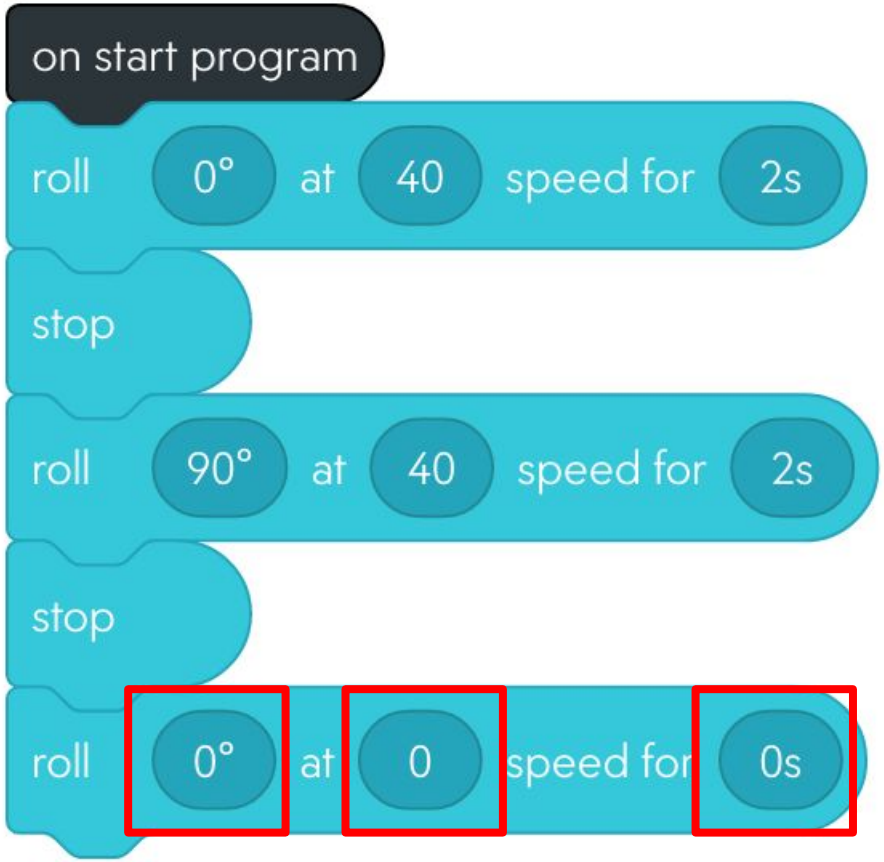
Now Backwards

- Adjust the first box to allow Sphero to change direction



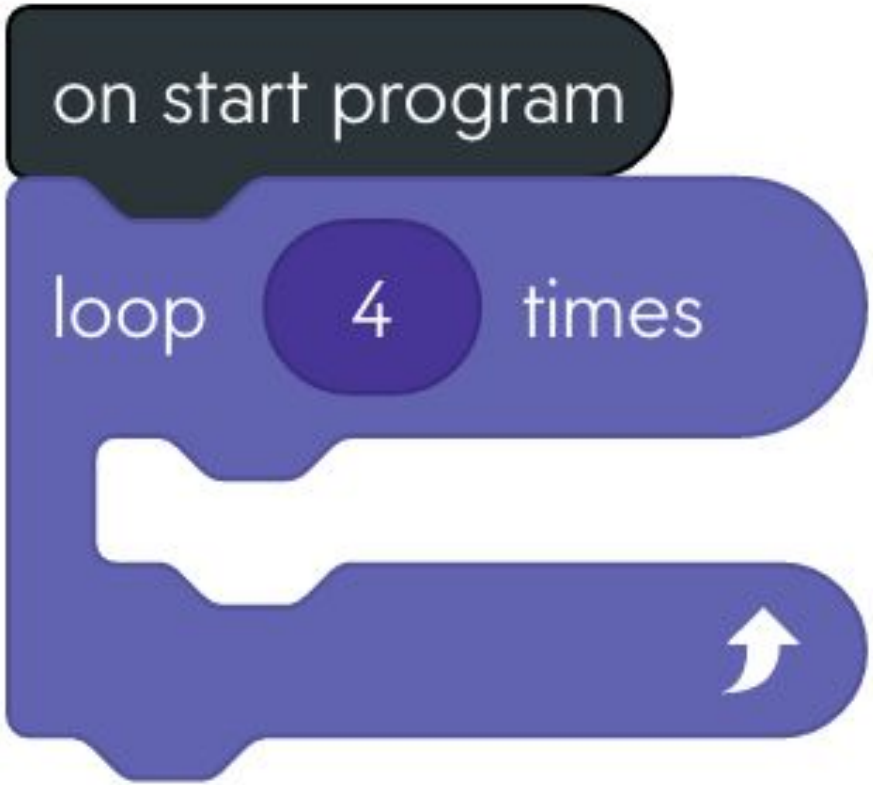
Let's make a Square

- Using what we have here can you finish the square?



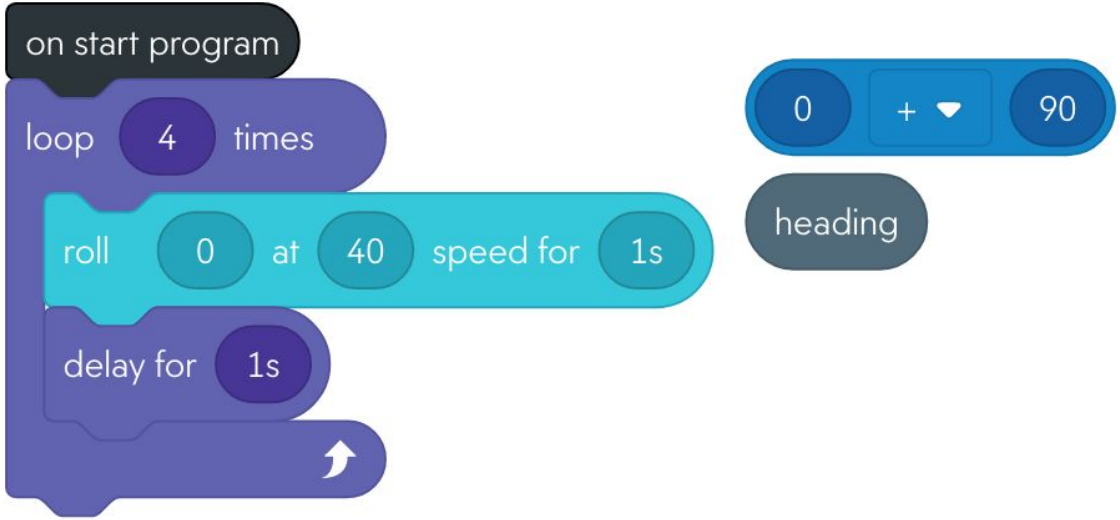
Using loops to make a Square

- ❏ Grab the **loop** block under **Controls**



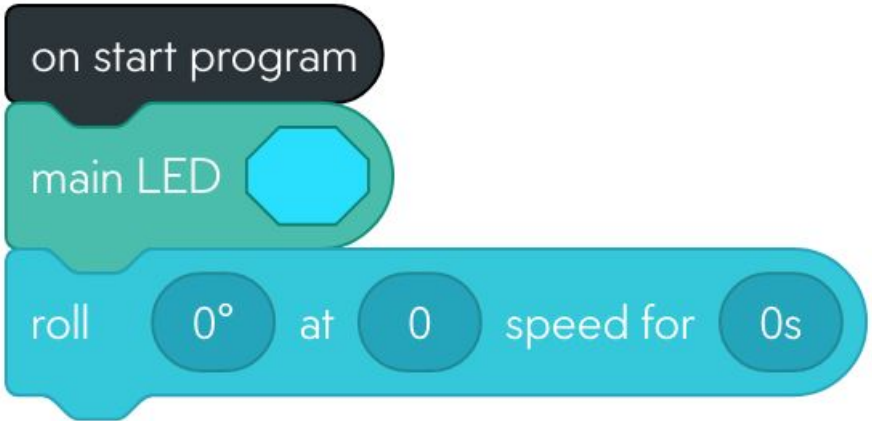
Loops

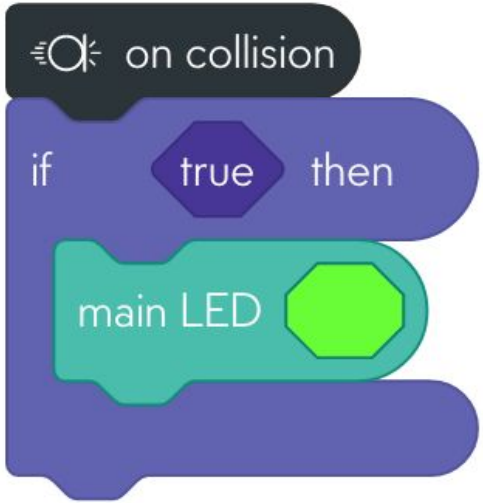
- Now grab the **roll** block and **insert** it into the loop
- Grab the **addition** block from under **operators**
- Grab **heading** block from under **sensors**



If Else

- Under the events tap drag on freefall to the canvas
- on freefall will run alongside on start program
- If the Sphero falls it will turn from blue to green





Challenge!

- ❏ Create your own program!
- ❏ Grab cones and ramps
- ❏ Team with most creative program will win extra credit!

bit.ly/Tappost

Post Survey, Tell us your thoughts!

- Patrick Page - @macmanpat
- Joel Garcia - @ __JoeltheEagle__
- Nikki M. - @nikkimilani
- Daniel R. - 404 gram not found

Follow us a the gram