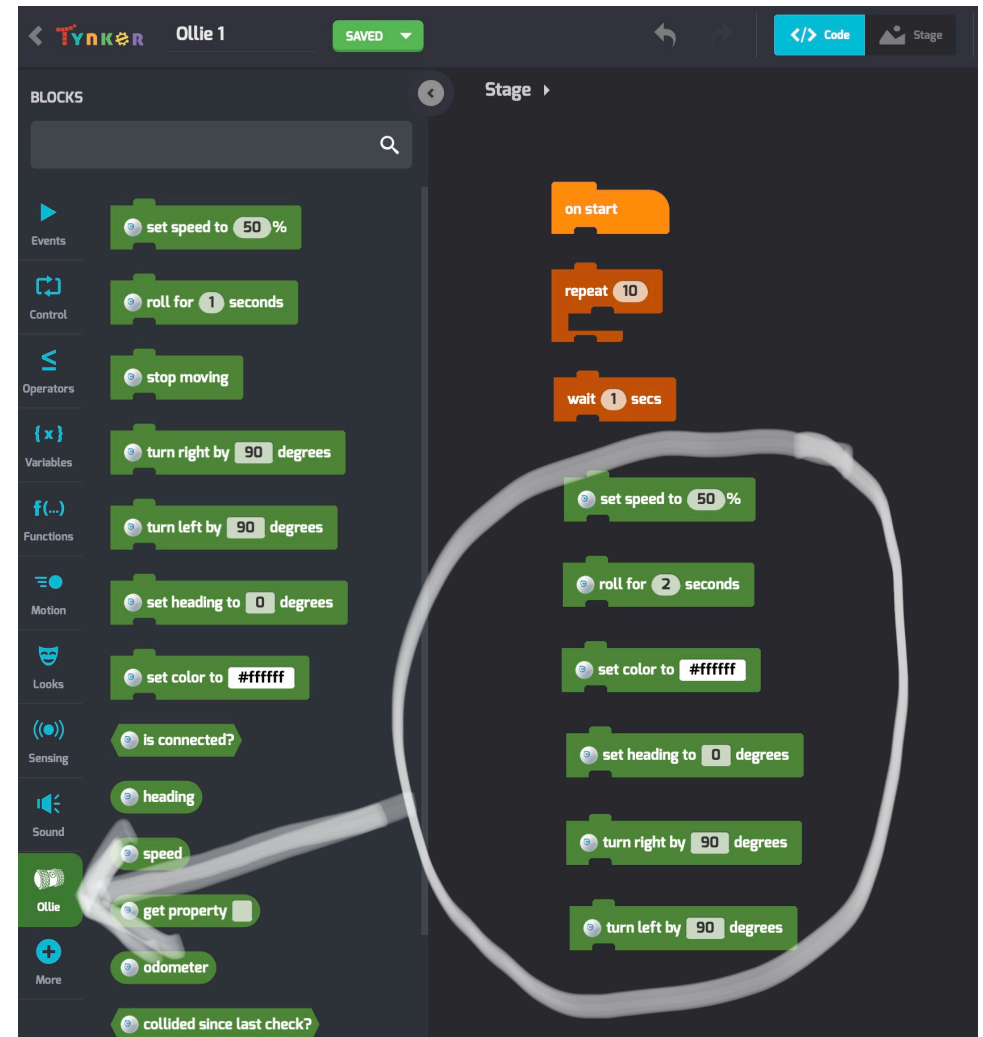# How to program Sphero in Tynker

Events and Controls:
Get your start button, repeat blocks, and wait commands here.

Ollie Buttons:
Here's where you'll get everything else you need to move your robot

A. The basic flow is:
  1. Set heading (direction)
  2. Repeat block rolls
  3. Change color to show that you're done
  4. Reset the heading and repeat

B. Use "wait" blocks so you can count how many iterations of rolling you are using. This helps guesstimate the distance.

C. Change colors after a repeat cycle so you can keep track of where you are in the program.

D. You change the distance by changing the number of seconds per roll and the number of rolls.

E. Use the worksheet to guess the heading. This will be the hardest part. Your iPad has a compass in it, but I doubt that it will be accurate, so ask for help on this part.

F. The string is cut in 20 ft sections. Use it to measure the section of the hallway.

G. Take turns with all of the different assignments:
  1. Coder
  2. Measurement team
  3. Compass team
  4. Ollie chaser

< TYNKER   Ollie 1   SAVE ▾   </> Code   Stage

BLOCKS   Stage ▸

▶ Events
set speed to 50 %

🔁 Control
roll for 1 seconds

≤ Operators
stop moving

{x} Variables
turn right by 90 degrees

f(...) Functions
turn left by 90 degrees

≡● Motion
set heading to 0 degrees

🎭 Looks
set color to #ffffff

((●)) Sensing
is connected?

heading

🔊 Sound
speed

🎱 Ollie
get property

➕ More
odometer

collided since last check?

when I collide

on start
set speed to 50 %
set color to #029800
set heading to 105 degrees
wait 1 secs
repeat 5
  roll for 2 seconds
  wait 1 secs
set color to #0000ff
set heading to 30 degrees
repeat 5
  roll for 2 seconds
  wait 1 secs
set color to #ff0000
set heading to 270 degrees
repeat 5
  roll for 2 seconds
  wait 1 secs
set color to #ff8000
set heading to 5 degrees

Heading and Distance Guesses:

1. Heading:_____

   Distance: _____

2. Heading:_____

   Distance: _____

3. Heading:_____

   Distance: _____

4. Heading:_____

   Distance: _____

5. Heading:_____

   Distance: _____

6. Heading:_____

   Distance: _____

7. Heading:_____

   Distance: _____