

WELCOME TO

# TECHNOVATI N

Week 2 - October 1



**MICHIGAN STATE** UNIVERSITY

# Agenda

- Club contract & Icebreaker
- Lesson 2: Colors and Variables
  - Colors
  - Variables
  - User Inputs
- Coding challenges
- Standup

## Club Contract

We've written down all of your responses from the club contract last week and now it's time to sign it!

Ice Breaker! - Name Train

# Tracy Command: color

```
color("color_name")
```

Changes the color of  
the trail Tracy leaves



```
color("blue")  
forward(25)
```



```
color("orange")  
forward(25)
```



# Some Color Names You Can Use

<code>"black"</code>	<code>"orange"</code>	<code>"gold"</code>	<code>"white"</code>
<code>"blue"</code>	<code>"pink"</code>	<code>"gray"</code>	<code>"violet"</code>
<code>"brown"</code>	<code>"purple"</code>	<code>"green"</code>	<code>"indigo"</code>
<code>"cyan"</code>	<code>"red"</code>	<code>"tangerine"</code>	<code>"mauve"</code>

Default color: "black"

More color names at:

<https://www.webucator.com/article/python-color-constants-module/>

# Tracy Command: pensize

**pensize** (*number*)

Changes the thickness of the trail Tracy leaves



`pensize (1)`  
`forward (50)`



`pensize (10)`  
`forward (50)`



# Tracy Command: `begin_fill()`, `end_fill()`

**`begin_fill()`**

Start keeping track of closed shapes that are drawn



**`end_fill()`**

Stop keeping track of closed shapes and fill them

```
begin_fill()  
circle(50)  
end_fill()
```





# Tracy command: setposition

```
setposition(x, y)
```

Moves Tracy to the given coordinate



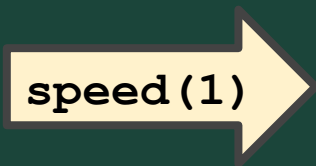
setposition(100,100)



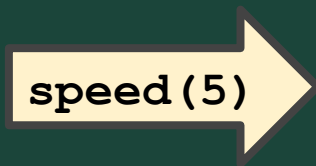
# Tracy command: speed

**speed** (*number*)

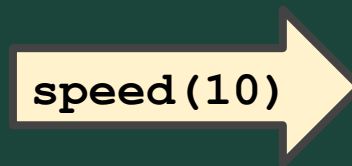
Sets how quickly Tracy will move through commands



*Slowest*



*Medium*



*Very Fast*



*Fastest!*

# Ready, Set, CODE!

Command	What does it do?
<code>forward(<i>distance</i>)</code>	Moves Tracy forward a specified distance
<code>circle(<i>radius</i>)</code>	Tells Tracy to draw a circle with a specified radius
<code>backward(<i>distance</i>)</code>	Moves Tracy backward a specified distance
<code>penup()</code>	Stops Tracy from leaving a trail
<code>pendown()</code>	Has Tracy start drawing a trail
<code>left(<i>degrees</i>)</code>	Turn Tracy the specified degrees to the left
<code>right(<i>degrees</i>)</code>	Turn Tracy the specified degrees to the right

# Ready, Set, CODE!

Command	What does it do?
<code>color("color name")</code>	Changes Tracy's trail color
<code>pensize(number)</code>	Changes Tracy's trail thickness
<code>begin_fill()</code>	Starts tracking closed shapes
<code>end_fill()</code>	Fills & stops tracking closed shapes
<code>setposition(x, y)</code>	Moves Tracy to the input coordinates
<code>speed(number)</code>	Sets how fast Tracy executes commands

# Standup

- What is a challenge you faced today?
- What is something you were successful with?
- What do you want to improve on for next week?
- What are you most excited to learn?

# Temperature Check

<https://forms.gle/2RFvixVSe7C5vzzz5>