



at the University of Michigan Department of
Computational Medicine and Bioinformatics

Choreography with Code

What is
coding?

Boolean: binary variable with two possible values



TRUE



FALSE

If you like the color pink:

Put your thumb up

Else:

Put your thumb down

If you have brown hair:

Go to left side of classroom

Else:

Go to right side of classroom

If you like chocolate:

Go to left side of classroom

Else:

Go to right side of classroom

If you were born in Michigan:

Go to left side of classroom

Else:

Go to right side of classroom

If you like dogs:

Go to left side of classroom

Else if you like cats:

Go to right side of classroom

Else:

Go to front of classroom

If you like math:

Go to left side of classroom

Else if you like science:

Go to right side of classroom

Else:

Go to front of classroom

If you like to read:

Go to left side of classroom

Else if you like to watch tv:

Go to right side of classroom

Else:

Go to front of classroom

Conditional statement

If something is TRUE:



Then do something

Else if something is TRUE:

Then do something

Else:

Do something

Choreography with Code

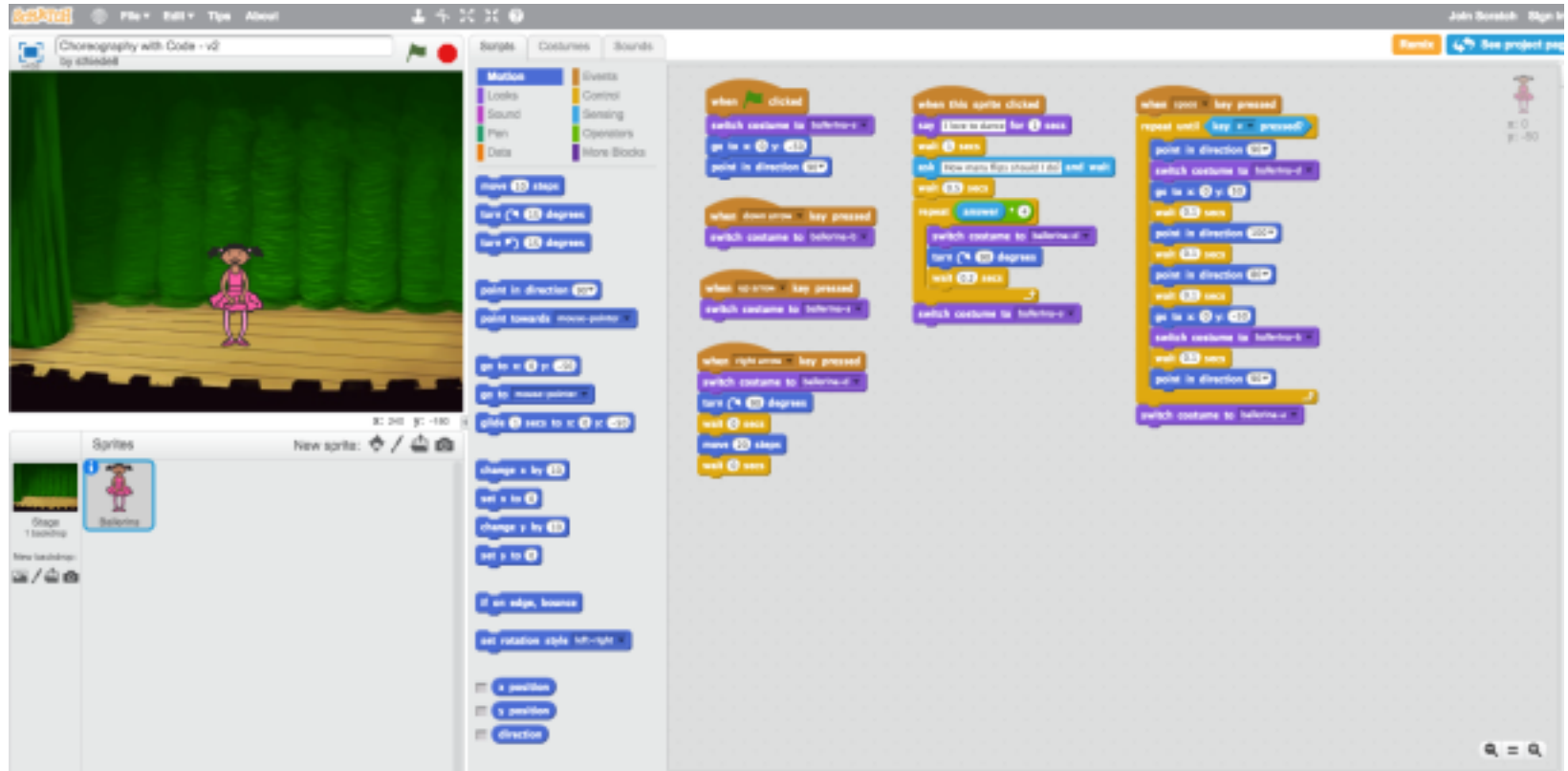


Instructions

This ballerina wants to show you her moves! Press the green flag to start and answer her questions!

Notes and Credits

Choreography with Code



Choreography with Code

If answer to question “Do you want me to dance?” is yes:

Ballerina dances

Else:

If answer to question “Do you want me to dance” is no:

Ask “Would you like me to do some flips?”

If answer to question “Would you like me to do some flips?” is yes:

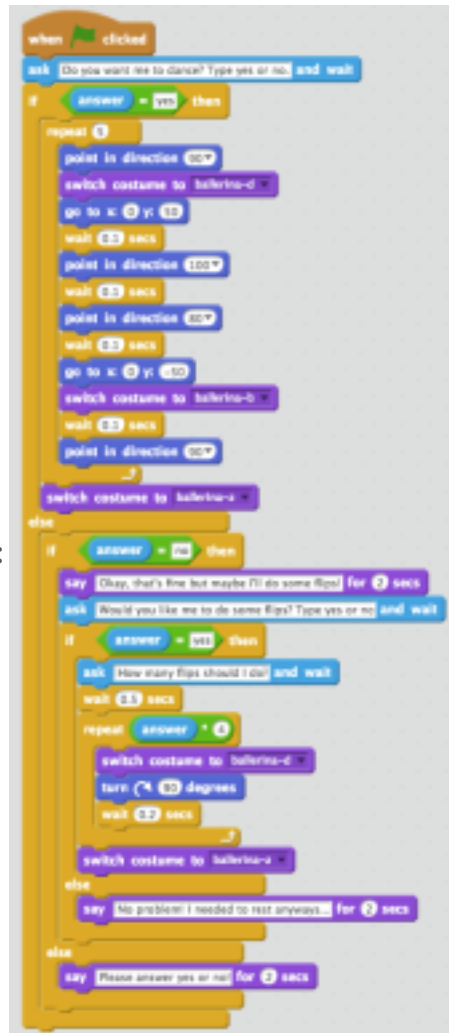
Ask “How many flips should I do?” and do flips

Else:

Say “No problem! I needed to rest anyways...”

Else:

Ask user to please answer yes/no



Choreography with Code

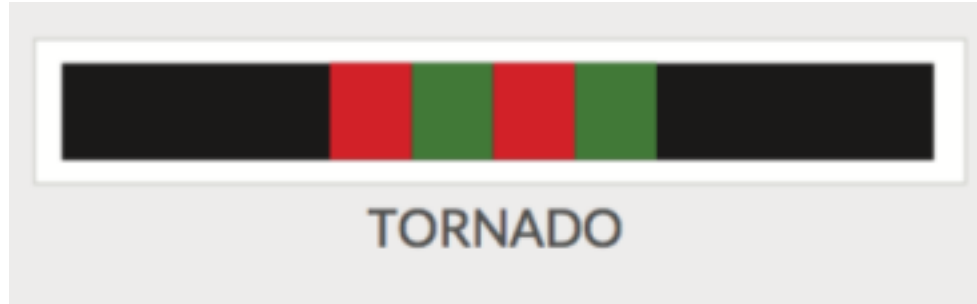


Make your own **conditional statement** following instructions on the handout.

Ozobot



If sensor reads

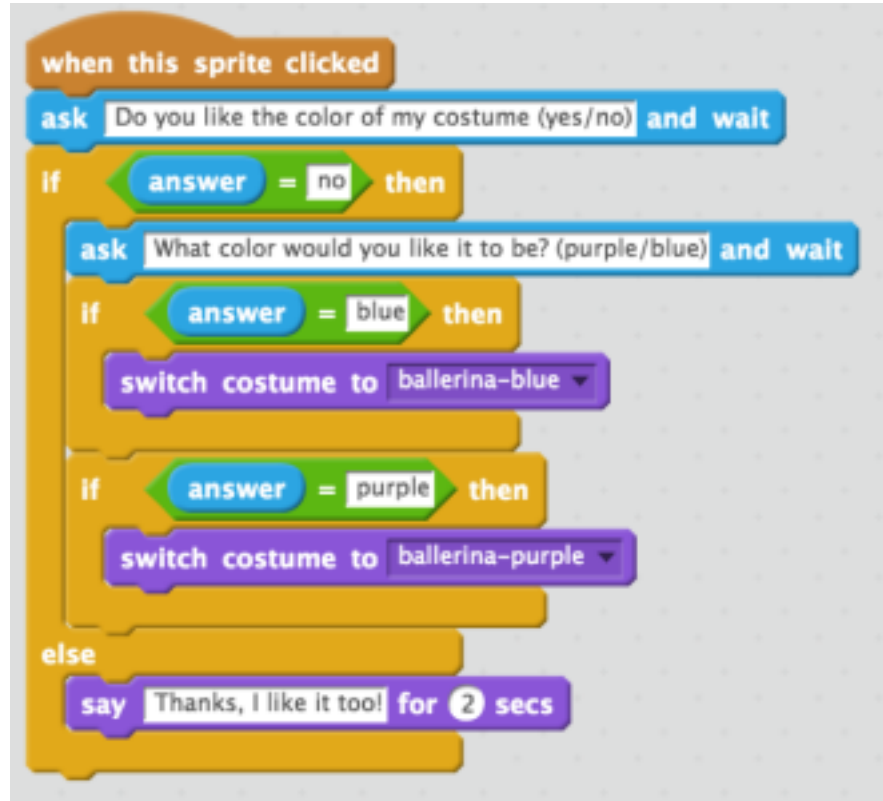


Spin around like a tornado

Else:

Continue moving forward on path

Scratch Solution



Scratch bonus: How to make your code robust



Ozocodes

SPEED



SNAIL DOSE



SLOW



CRUISE



FAST



TURBO



NITRO BOOST

DIRECTION



GO LEFT



GO STRAIGHT



GO RIGHT



LINE JUMP LEFT



LINE JUMP STRAIGHT



LINE JUMP RIGHT



U TURN



U TURN (LINE END)

TIMERS



TIMER ON (30 SEC. TO STOP)



TIMER OFF



PAUSE (3 SEC.)

COOL MOVES



TORNADO



ZIGZAG



SPIN

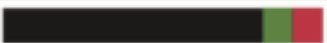


BACKWALK

WIN/EXITS



WIN/EXIT (PLAY AGAIN)



WIN/EXIT (GAME OVER)

COUNTERS

FIVE DOWN TO STOP



ENABLE X-ING COUNTER



ENABLE TURN COUNTER



ENABLE PATH COLOR COUNTER



ENABLE POINT COUNTER



POINT +1



POINT -1