Scratch!

Mike Bailey
mjb@cs.oregonstate.edu
Oregon State University

http://cs.oregonstate.edu/~mjb/scratch
Programming from Left-to-Right
Programming from Top-to-Bottom
Stand Up
Stand Up

Raise Your Left Hand
Stand Up

Raise Your Left Hand

Put Your Right Hand on Top of Your Head
Stand Up

Raise Your Left Hand

Put Your Right Hand on Top of Your Head

Turn Around One Circle
Stand Up

Raise Your Left Hand

Put Your Right Hand on Top of Your Head

Turn Around One Circle

Repeat 3 Times

Meow Like a Cat

Count to 2
Stand Up

Raise Your Left Hand

Put Your Right Hand on Top of Your Head

Turn Around One Circle

Meow Like a Cat

Count to 2

Put Your Hands Down

Repeat 3 Times
Stand Up
Raise Your Left Hand
Put Your Right Hand on Top of Your Head
Turn Around One Circle
 Repeat 3 Times
Meow Like a Cat
Count to 2
Put Your Hands Down
Sit Down
Stand Up
Raise Your Left Hand
Put Your Right Hand on Top of Your Head
Turn Around One Circle
Repeat 3 Times
Meow Like a Cat
Count to 2
Put Your Hands Down
Sit Down
Smile!
What Kind of People Need to Tell the Computer Where to Put Things?
Scratch Screen Layout

“Stage” (i.e., the scene)

Sprite Manipulation

Command Categories

Commands

Script Area

Sprite Selection (the “waiting room”)

Run your Program!
A Good Order to Start Doing Things In

1. Green flag puzzle piece
   3 Glide pieces

2. Additional actors
   3 Glides for each

3. Glides in a forever loop

4. Turn (rotate) and Change size

5. Turn (rotate) and Change size in Forever loops

6. Multiple threads

7. Background

8. Sound
when clicked

go to x: 0 y: 0

glide 2 secs to x: 120 y: 100

glide 2 secs to x: 150 y: -100

glide 1 secs to x: -150 y: 50
Keep an Actor Spinning

- When clicked
- Point in direction 90°
- Forever
- Turn 15° degrees
Keep an Actor Changing Size

when clicked
set size to 100%

forever
repeat 20
  change size by 10
repeat 20
  change size by -10
When the Green Flag gets waved, does only one car get to start, or all of them?

http://www.skirtsandscuffs.com/2011_03_01_archive.html
When the Green Flag gets waved, does only one program get to start, or all of them?
when clicked
play sound meow