Scratch!

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http://cs.oregonstate.edu/~mjb/scratch
What Kind of People Need to Tell the Computer Where to Put Things?
Programming from Left-to-Right
Programming from Top-to-Bottom
When the Green Flag gets waved, what happens?

http://www.skirtsandscuffs.com/2011_03_01_archive.html
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

Repeat 3 Times

Meow Like a Cat

Count to 2

Put Your Hands 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
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 !
Scratch Screen Layout

- **“Stage” (i.e., the scene)**
- **Sprite Manipulation**
- **Command Categories**
- **Commands**
- **Script Area**

**Sprite Selection** (the “waiting room”)

**Run your Program!**

**Commands**
- move steps
- turn degrees
- point in direction
- go to x: y:
- change x by
- set x to:
- change y by
- set y to:

**Script Area**

**Plot Area**

**Line by Line**

- Sprite Manipulation
- Command Categories
- Commands
- Script Area

- Scratch 2 Offline Editor
- Offline Editor (beta)
- Scripts
- Costumes
- Sounds

- Motion
- Events
- Control
- Sprites
- Operators
- More Blocks

- Stage
- Sprite Selection
- 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 Green Flags

7. Background

8. Sound
glide 2 secs to x: 120 y: 100
Move an Actor

- **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 Moving

```
when clicked

go to x: 0 y: 0

forever

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