SCRATCH • CONNECTING • WORLDS

Scratch Conference

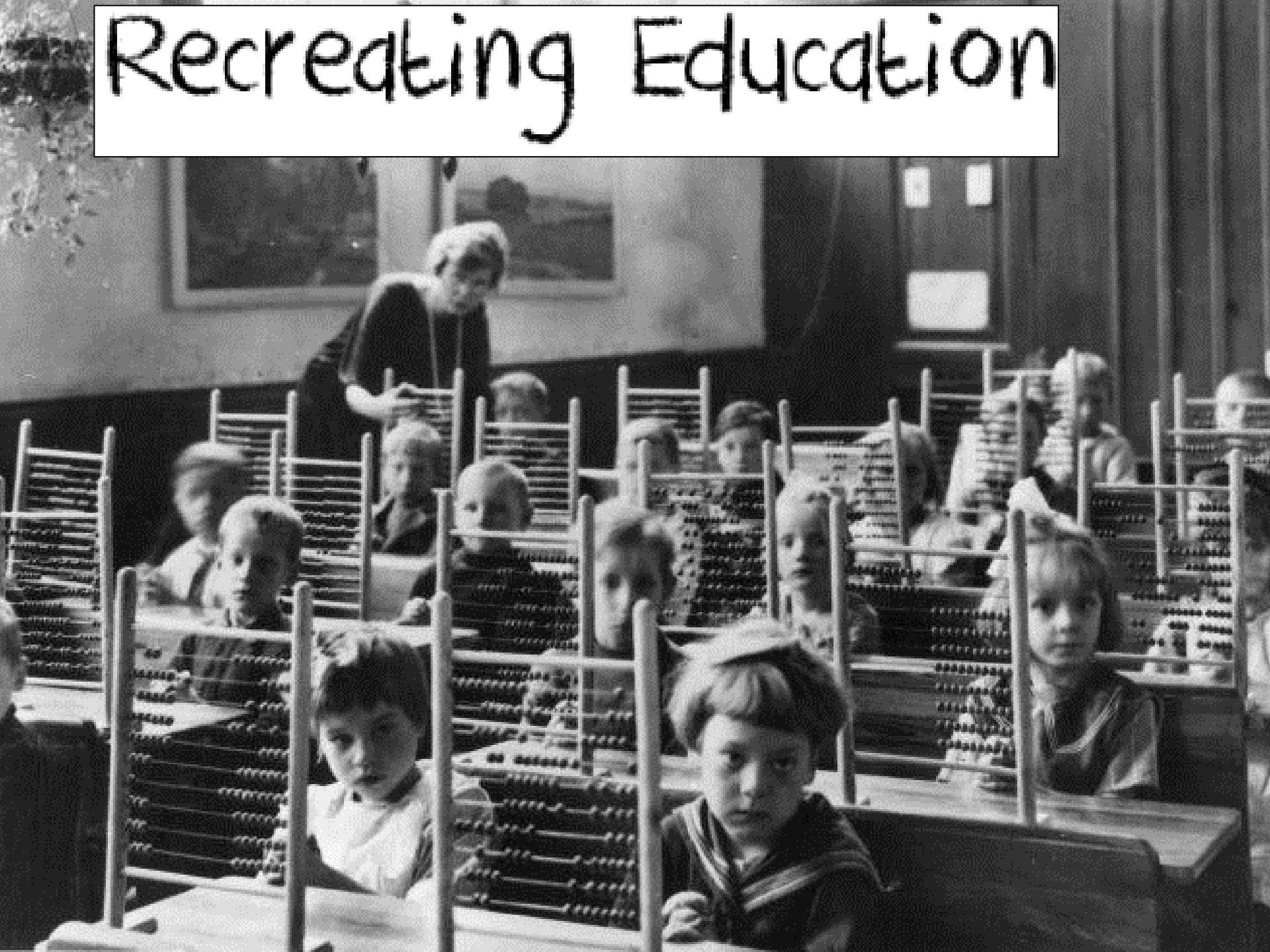
25-27 July 2013

IGNITE TALKS

SCRATCH • CONNECTING • WORLDS
Scratch Conference
25-27 July 2013

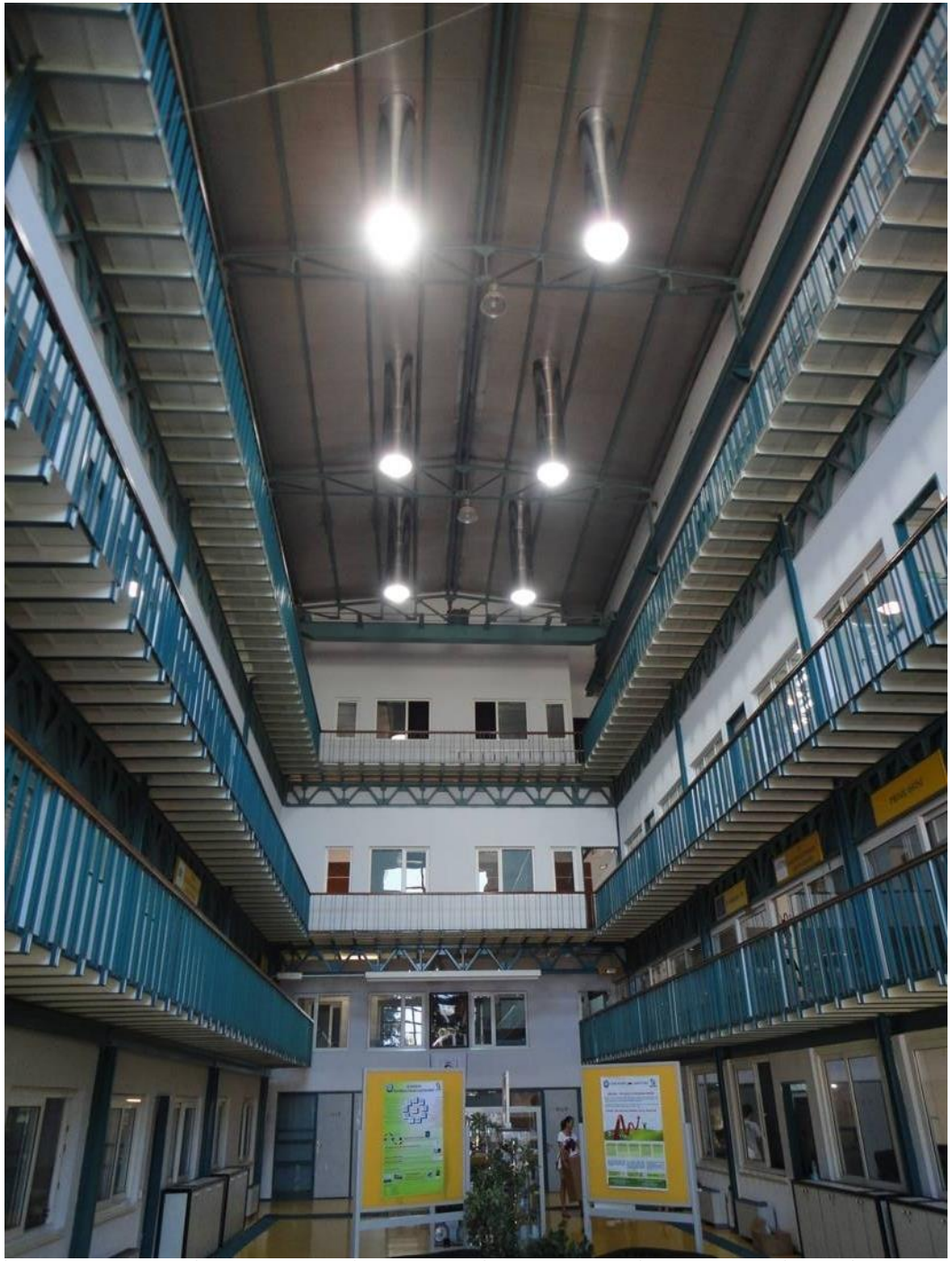
Drew Buddie

Recreating Education



http://www.flickr.com/photos/bsfinhull/

School?



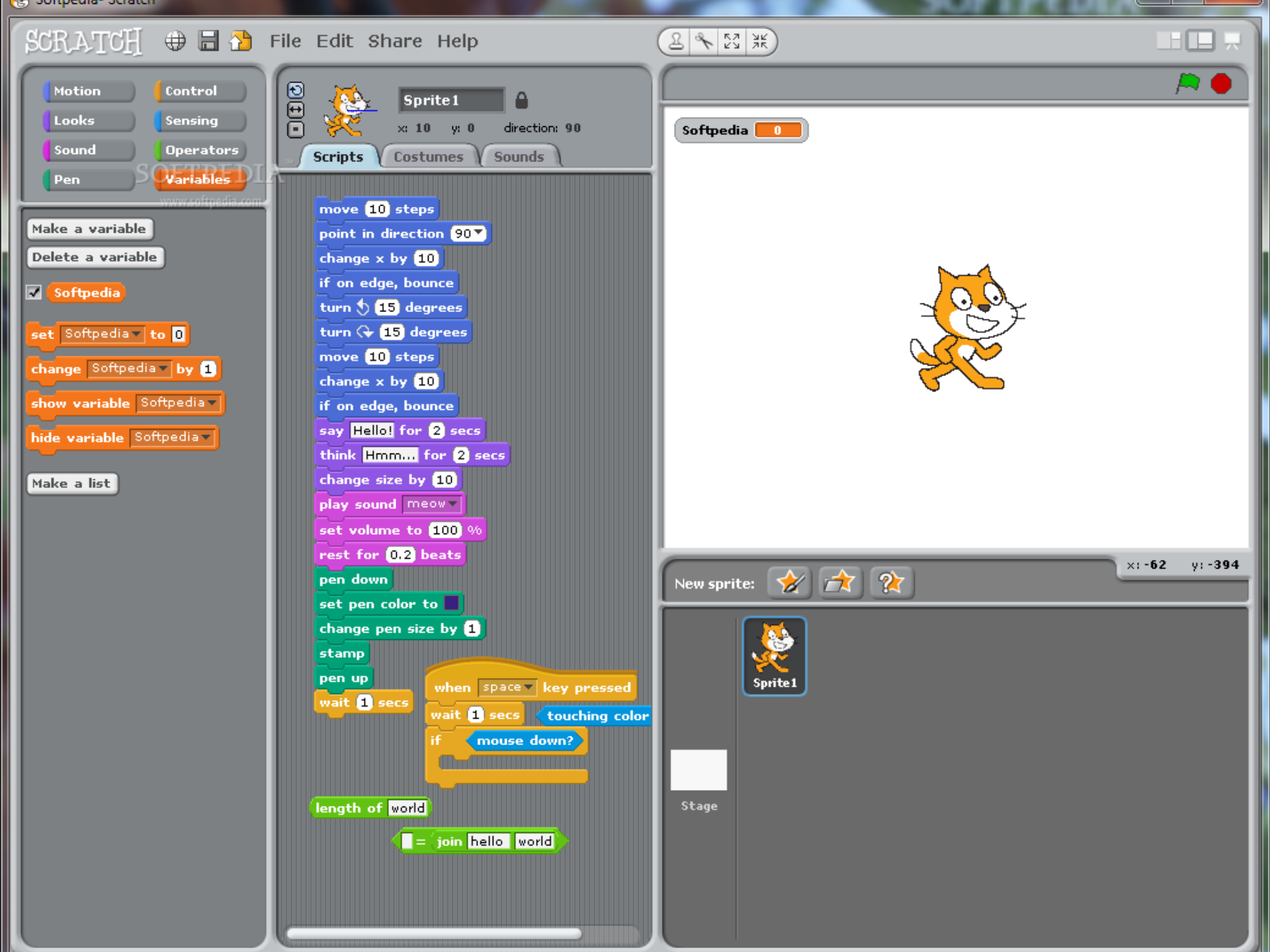
Prison?

http://2.bp.blogspot.com/-QSPJOvh6TTM/Twcq3iPyDJI/AAAAAAAAAIQ/4sqoBaoGJAU/s1600/image001.jpg


http://i3.asn.im/How-to-prevent-cheating-in-class-_t256.jpg

http://rubble.heppell.net/places/shoeless/media/shoeless_rack.jpg


http://4.bp.blogspot.com/-gO9iVnORGXk/UDBLG1gUKvI/AAAAAAAAA1E/i57s0rKWEHE/s1600/Ian_Livingstone.jpg


SCRATCH
File Edit Share Help
Motion Control
Looks Sensing
Sound Operators
Pen Variables
Make a variable
Delete a variable
Softpedia
set Softpedia to 0
change Softpedia by 1
show variable Softpedia
hide variable Softpedia
Make a list
Sprite1
x: 10 y: 0 direction: 90
Scripts Costumes Sounds
move 10 steps
point in direction 90
change x by 10
if on edge, bounce
turn 15 degrees
turn 15 degrees
move 10 steps
change x by 10
if on edge, bounce
say Hello! for 2 secs
think Hmm... for 2 secs
change size by 10
play sound meow
set volume to 100 %
rest for 0.2 beats
pen down
set pen color to
change pen size by 1
stamp
pen up
wait 1 secs
when space key pressed
wait 1 secs
touching color
if mouse down?
length of world
= join hello world
Softpedia 0
x: -62 y: -394
New sprite:
Sprite1
Stage


Row
Tile
Tile
L
R
Page 1
1
WHEN
saw
tree
DO
move
toward
2
WHEN
bumped
fruit
DO
switch
page 2
3
WHEN
gamepad
A
A button
DO
jump

http://news.bbcimg.co.uk/media/images/60752000/jpg/_60752439_keyboard2.jpg

Guilty: Amanda Knox looks stunned as appeal against murder conviction is rejected

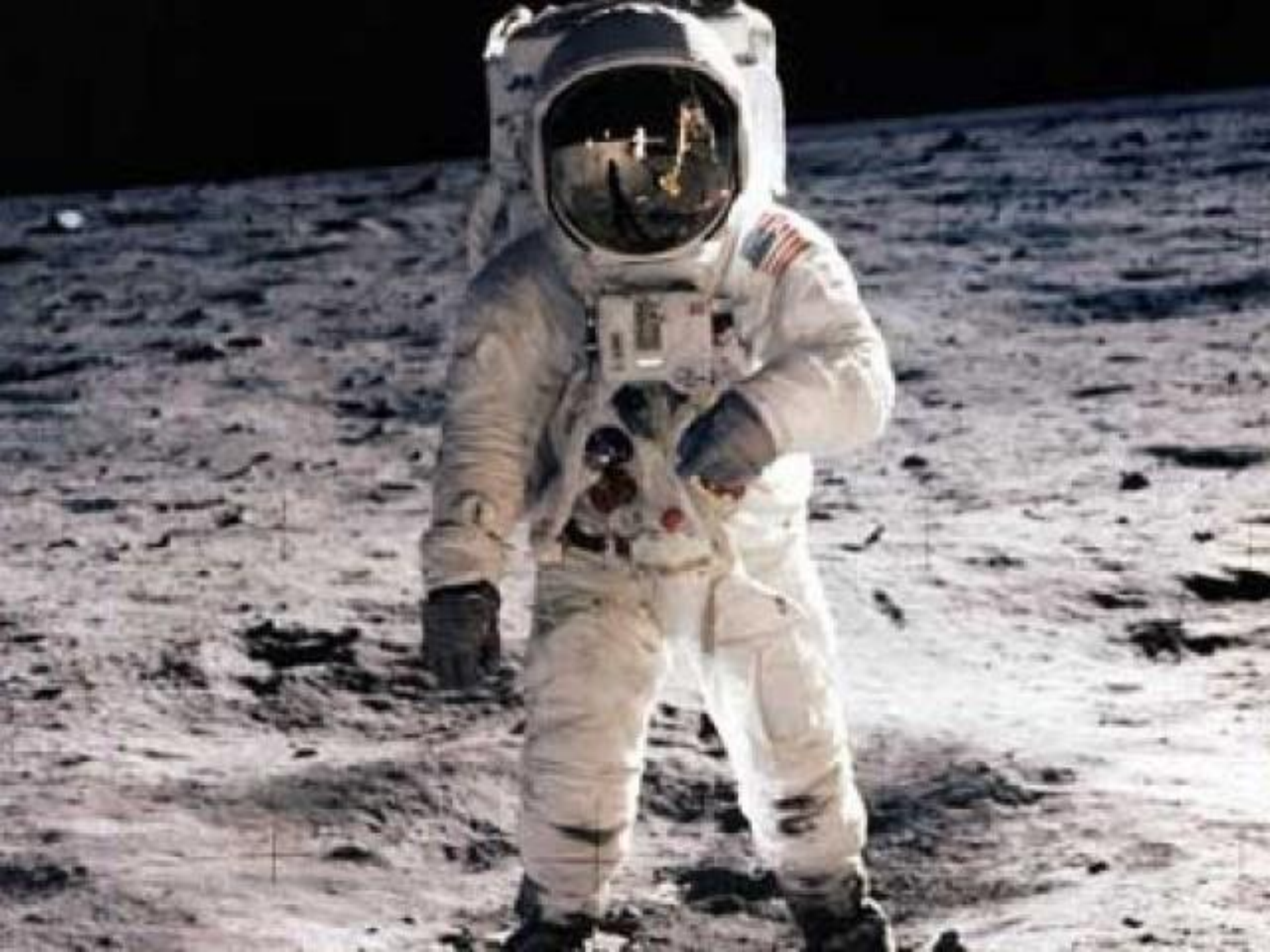
By NICK PISA

Last updated at 8:50 PM on 3rd October 2011

Amanda Knox looked stunned this evening after she dramatically lost her prison appeal against her murder conviction.

Knox, 24, and her family had high hopes that she would be freed and allowed to return home after spending the last four years behind bars for the killing of Meredith Kercher in Perugia, Italy, in 2007.

In December 2009 she had been sentenced to 26 years and last night the judge and jury agreed with prosecutors that she should remain in prison as they accepted that she had brutally murdered student Meredith.




ci as
Piedras semipreciosas combinadas con plata, jaspe, corales y hasta con fósiles. Esta es la propuesta de Teresa Aldama y de sus diseños tan sugestivos como irrepetibles.

Whale Leaps From Water, Crushes Sailboat

Published July 21, 2010 | FoxNews.com


http://www.wired.com/underwire/2009/01/watchmen-market/

http://edudemic.com/wp-content/uploads/2012/01/Inanimate-Alice.png

Unlink

Interactive what?

What is an interactive story? Well, you're reading one!

Except of course, this isn't really a story. This is a tutorial. In most interactive stories, you - the reader - would be telling the story what you want the main character to do, by making choices.

But for now, we're trying to learn how it works. So let's get going.

2 links.

Okay

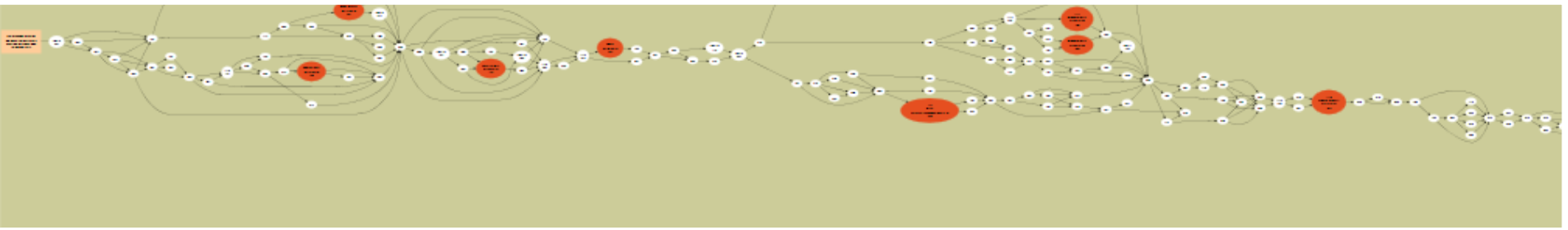
I still don't get it. An example, please?

Add option

B
I
...

Contents

- The beginning 1 end
- Introduction
- Interactive what?
  - What is an interactive story? Well, you're reading one!
  - Except of course, this isn't really a story. This is a tutorial. In most interactive stories, you - the reader - would be telling the story what you want the main character to do, by making choices.
  - But for now, we're trying to learn how it works. So let's get going.
  - 2 links.
  - Oh, okay. Here goes. Um...
- Example story
- Choose a tutorial
- Sharing stories
- Changing the flow 1 end
- Options 1 end
- The Contents List



http://upload.wikimedia.org/wikipedia/commons/0/0b/Joe_Dever.jpg

http://www.gamebooks.org/gallery/figfan01o.jpg

Part story, part game, this is a book with a difference – one in which YOU become the hero!

Armed with two dice, a pencil and an eraser, you can set off on a perilous quest to find the Warlock's treasure. YOU will need to decide which route to follow, and which monsters to fight in the elaborate combat system given in the book.

You may not survive your first journey. But with experience, skill and luck, each fresh attempt should bring you nearer to your great goal . . .

Cover illustration by Peter Jones

U.K. £1.25
AUST. $2.95
(recommended)
CAN. $2.95

A Puffin Book

ISBN 0 14
03.1538 1

STEVE JACKSON
AND IAN LIVINGSTONE

The Warlock of Firetop Mountain

ISBN 0 14
03.1538 1

A PUFFIN ORIGINAL

Steve Jackson and Ian Livingstone

THE WARLOCK OF FIRETOP MOUNTAIN

A fighting fantasy gamebook
in which YOU become the hero!

Complete with combat system, monster encounters and score sheet

TeachMeet


http://www.dmvfollowers.com/wp-content/uploads/2012/06/Jack-Andraka.jpg

SCRATCH • CONNECTING • WORLDS

Scratch Conference

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Christophe Thomas

Top-Scratch

Toolbox to imagine and program
a game with SCRATCH

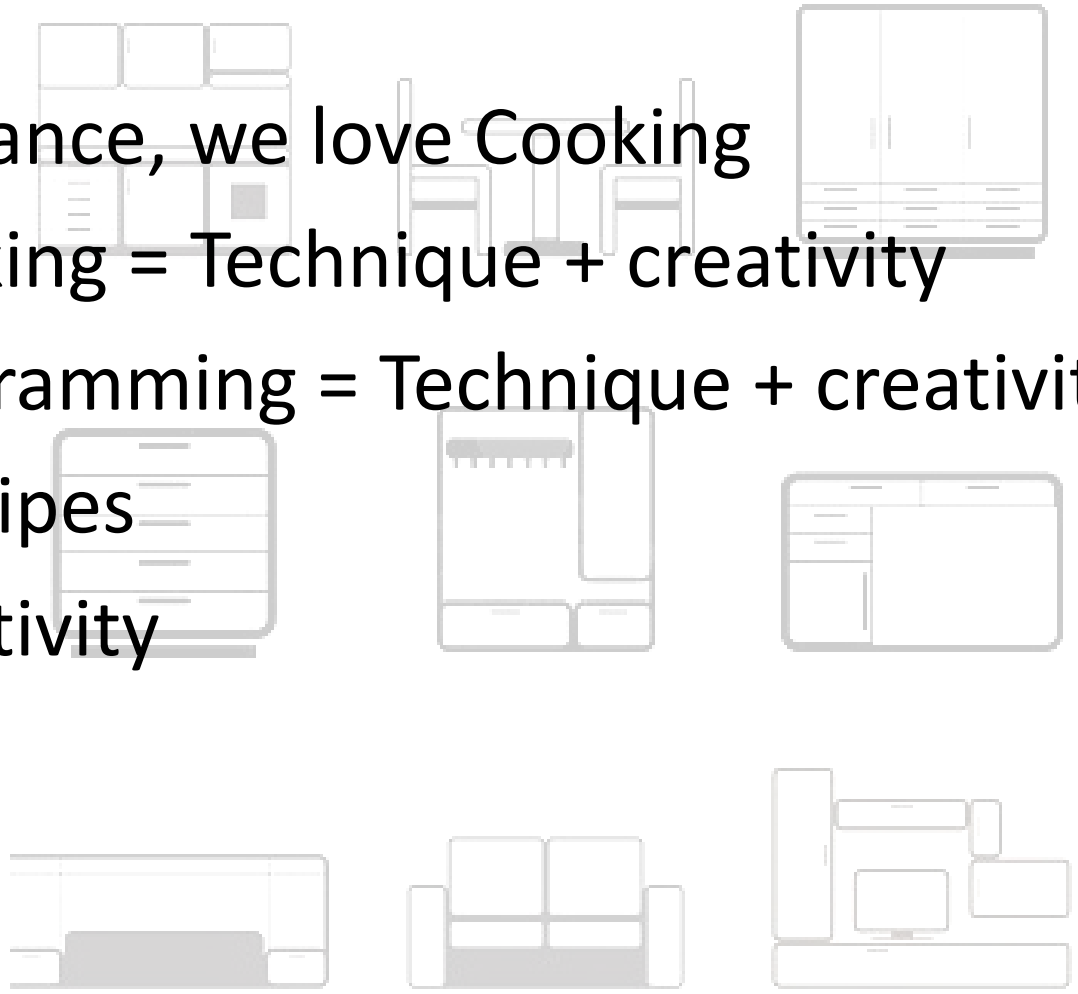
By Christophe THOMAS (France)

Forewords

- Top-Scratch was conceived in our programming club. It is a detailed and structured approach in programming games.
- Our club is based in Saint Gratien near Paris. It is hosted by FESC.

From Top Chef to Top Scratch

- In France, we love Cooking
- Cooking = Technique + creativity
- Programming = Technique + creativity
- Receipes
- Creativity



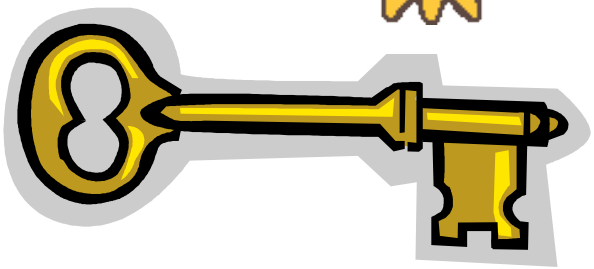
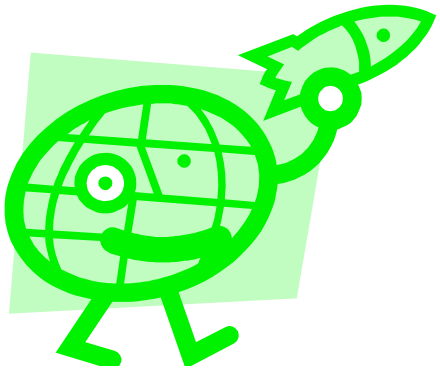
TOP SCRATCH

- Objectives :
  - How to conceive a game before programming?
  - What makes a good game
  - Purpose ➔ first
  - HOW TO ➔ second

WHAT are the ingredients of a game ?

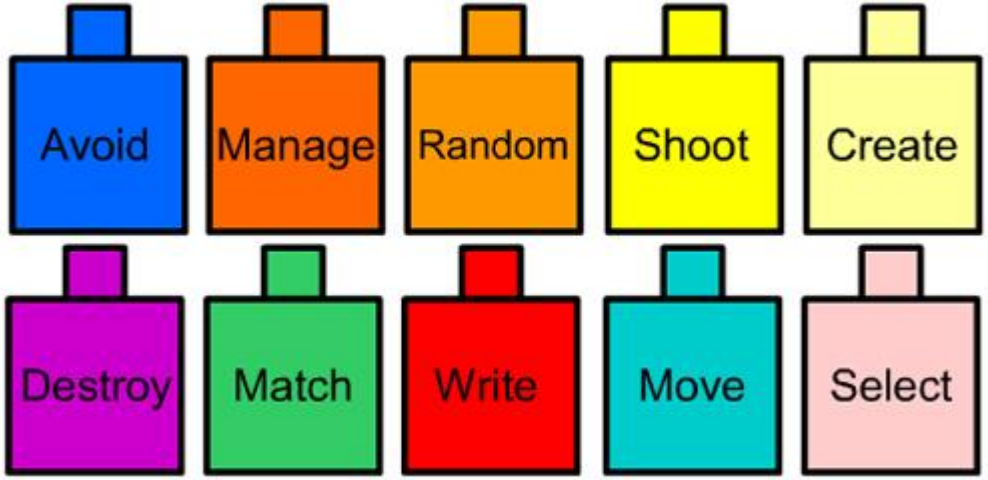
- A hero
- Friends
- The ennemy
- Places
- Objects for the quest
- Obstacles




WHAT are the ingredients of a game ?

- A game is more than a story ➔ the gameplay

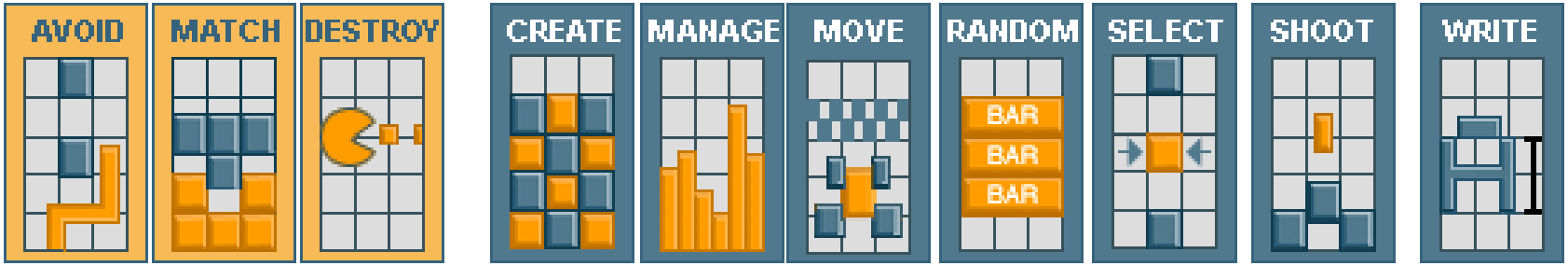


Source : http://www.gameclassification.com/EN/about/article.html

The gameplay bricks

Rules stating **goals**

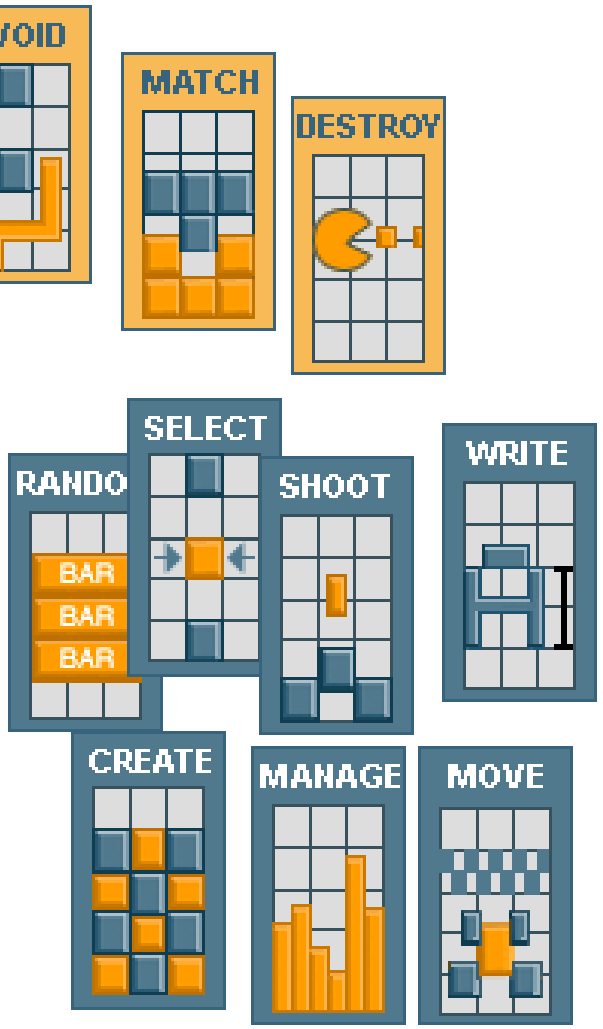
Rules defining means and constraints to reach these goals



Source : http://www.gameclassification.com/EN/about/article.html

The spirit of the game

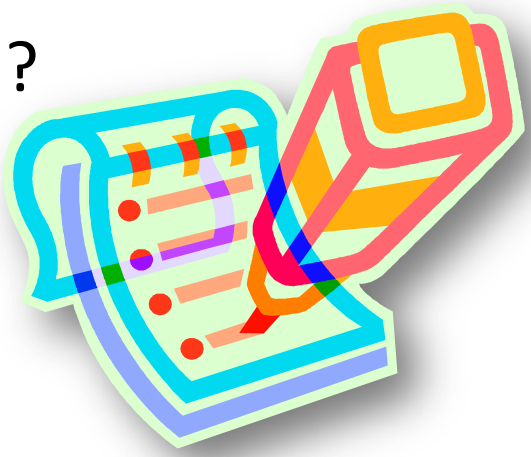
- SPIR T :
  - **S**ituation
    - Explain the context
  - **P**roblem
    - Explain the objectives
  - **I**nformations/**R**esolution
    - Explain how to …
  - **T**erminate
    - Explain how to end the game



The Kipling method for the characters : 5W

- Describe the character of the game
  - Who : the name of the characters/objects
  - What does it do ?,
  - How he will move ?
  - Where does it evolve ?
  - When does it appears in the game ?
  - Why : his purpose in the game.

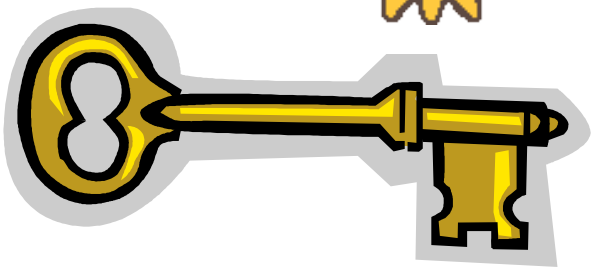
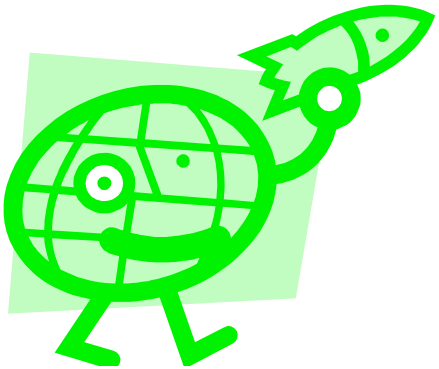
I keep six honest serving-men
(They taught me all I knew);
Their names are What and Why and When
And How and Where and Who.
Rudyard Kipling in his "Just So Stories" (1902)



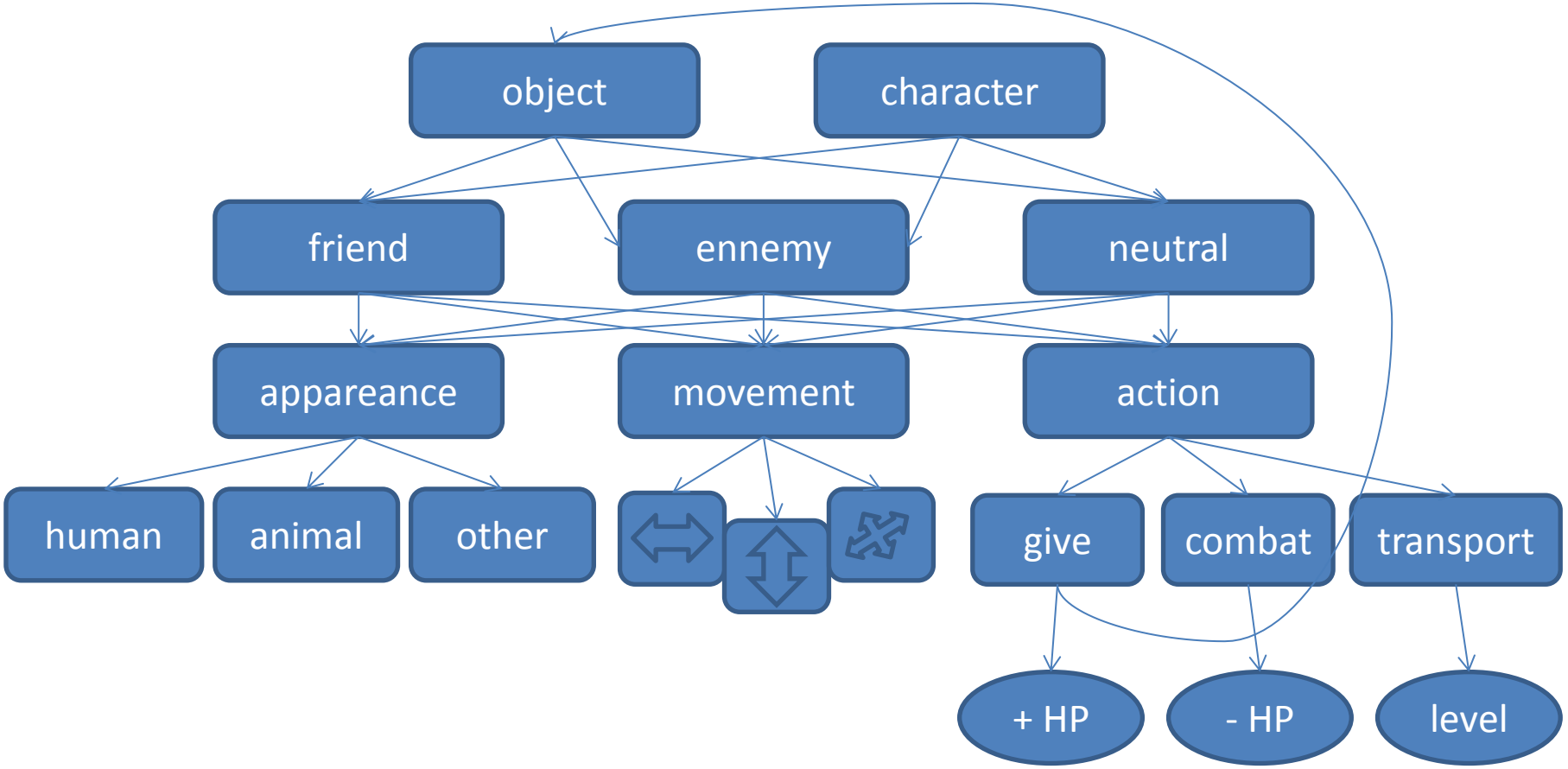
Who

- The hero
- The friend
- The ennemy
- The place
- The object of the quest
- The obstacle



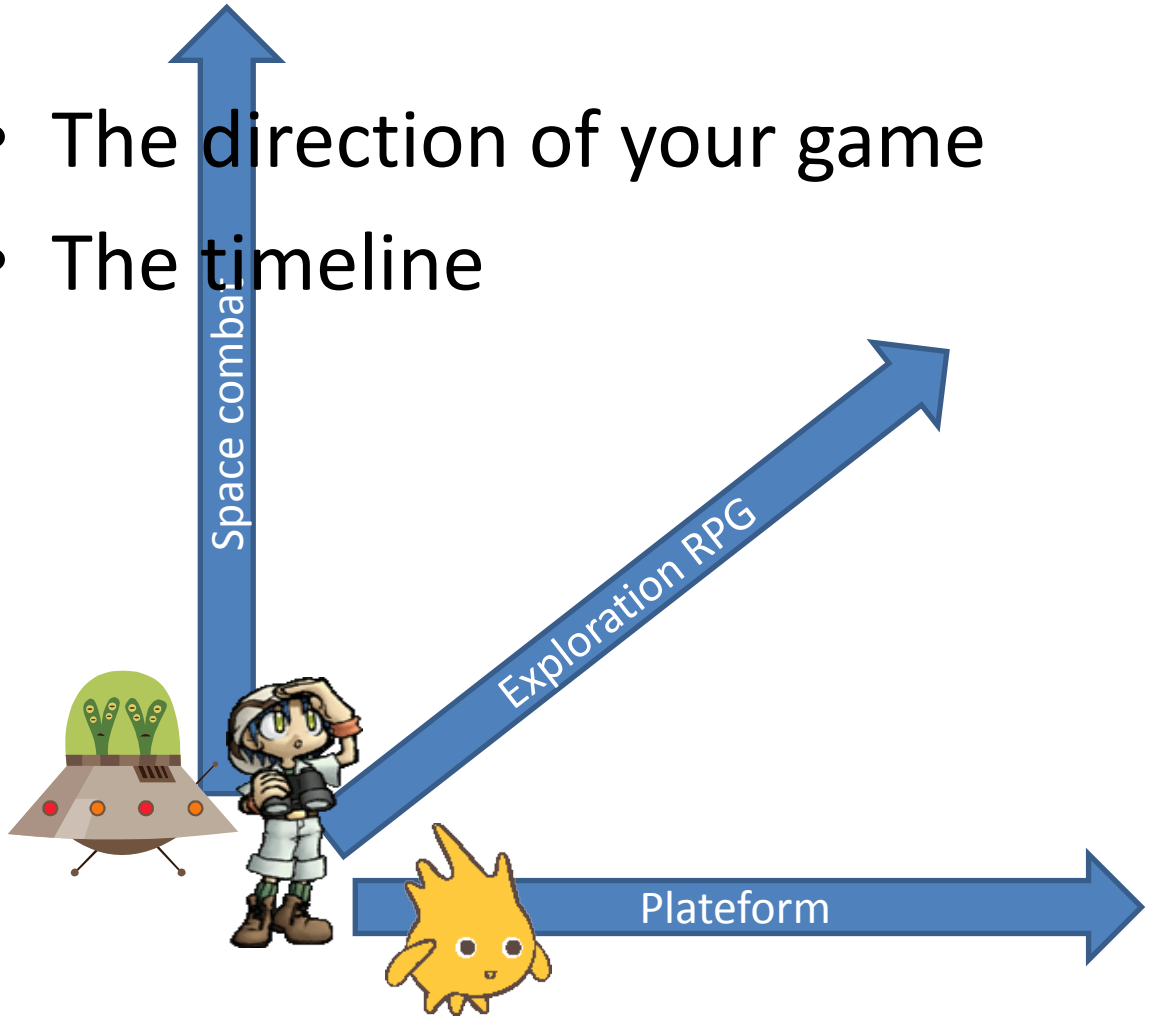





Rules of 3


object
character
friend
ennemy
neutral
appareance
movement
action
human
animal
other
give
combat
transport
+ HP
- HP
level

Where & When

- The direction of your game
- The timeline



Creativity toolbox

- Discovering :
  - Narration & SPIRiT
  - Bricks of Gameplay
  - How to imagine & describe characters and objects
  - What direction will take the game

Build the team

- Creativity = Explore + Combine + Transform
- 3 roles : Driver, navigator, reporter/documenter

– Navigator :
  - **Explore** the web, for documents,
  - Use the 5W

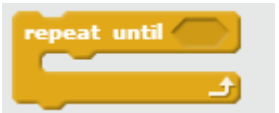
– Reporter/documenter :
  - **Combine** by mapping and organizing the information
  - Note the SPiRts

– Driver :
  - **Transform** with Scratch

Build the program with Metalgorithm

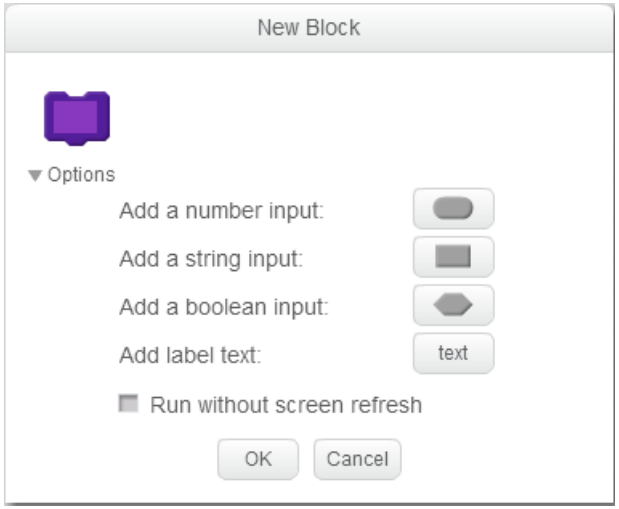
- Discovering :
  - Bifurcation :

  - Boucle :



  - Variable :

  - Functions :



The receipes

Scratch Cards

Scratch cards provide a quick way to learn new Scratch code. The front of the card shows *what* you can do; the back to do it. Click to **view and print** each card, or download a zip file with all the cards.*

You can also take a look at projects using the code on the Scratch Cards.

Change Color

Move to a Beat

Key Moves

Say Something

Glide

Follow the Mouse

Dance Twist

Interactive Whirl

Animate It

Moving Animation

Surprise Button

Keep Score

- Making new receipes
  - Learning by making

I know how to make this … I can teach you !

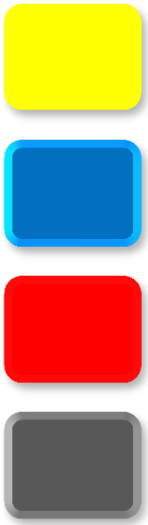
I want to know how to make this …

The ECU & the badges

- ECU : Echange de connaissance utile
  - exchange of useful knowledge :
  - By using SPIR T
    - **S**ituation :
      - **what** is the subject of EoUK
    - **P**roblem :
      - issues addressed by the EoUK
    - **I**nformation :
      - proposed solution, how to,
    - **R**esolution :
      - show an example
    - **T**ransmission of knowledge

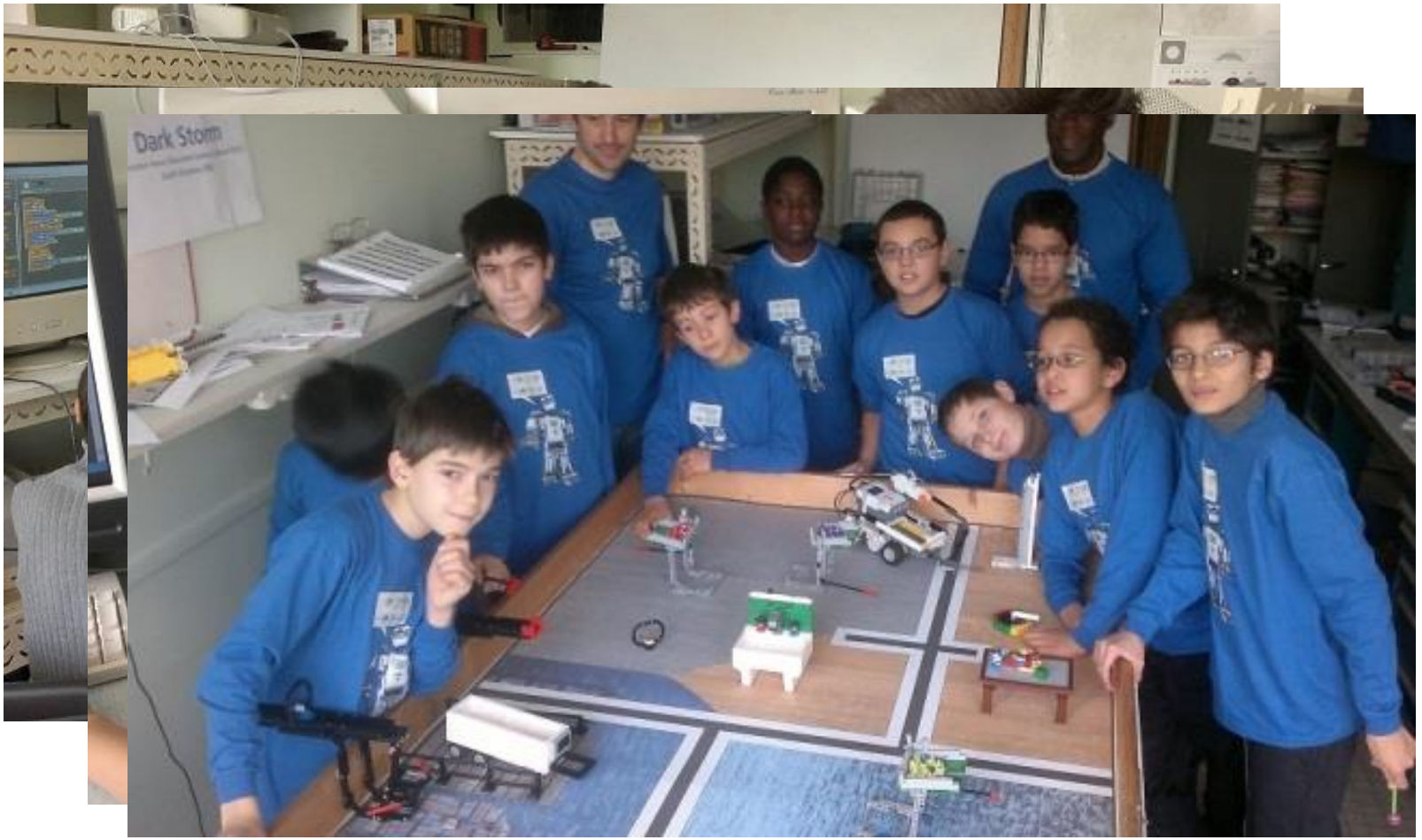
The ECU & the badges

- Create a dynamic of learning
- The badges :
  - Yellow badge ➔BASIC
  - Blue badge ➔JUNIOR
  - Red badge ➔SENIOR
  - Black badge ➔MASTER



Rules of 3 : 3 ECU gives a badge level

The experiment continue



Thank you

- Mail : christophe.thomas@rcx-storm.org

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Joao Orvalho

Computational thinking with Scratch in teachers education

João Orvalho

- Learning **Scratch** for computational and creative thinking: as a new approach to enhance the primary school teacher education.

- The question of what children should be learning in ICT lessons is one that increasingly preoccupies teachers and educators.

- In Portugal the education of primary teachers is mostly done by Colleges of Education.

- However, these schools do not prepare future teachers to teach the young to develop the interactive contents, developing logical problem solving.

- College of Education of Polytechnic Institute of Coimbra,

- four years ago we started a **Scratch** training program for students in the 1st year of the degree of primary school teachers

- we have followed their progress and see there are much to fix, especially in the development of the concept of computational thinking, and to change, especially in the thought of the ICT curriculum in the primary schools

Informatics education:
Europe cannot afford to miss the boat

Report of the joint

Informatics Europe & ACM Europe Working Group on Informatics Education

April 2013

Imagine the dramatic change which could be possible in just a few years... Instead of children bored out of their minds being taught how to use Word and Excel by bored teachers, we could have 11-year-olds able to write simple 2D computer animations… By 16, they could have an understanding of formal logic previously covered only in university courses and be writing their own apps for smartphones.

Michael Gove
UK Education Secretary

11 January 2012

computational thinking

- problem-solving process with distinctive problem-solving techniques and general intellectual practices.

problem-solving techniques

- Representing information through *abstractions* such as models and simulations.
- Logically *structuring* and *analyzing* data.
- Automating solutions through *algorithmic thinking*, involving carefully described sequences of steps taken from a well-defined catalog of basic operations.

problem-solving techniques

- Identifying, analyzing and implementing possible solutions with the goal of achieving the most *efficient* and combination of steps and resources, including both human and hardware resources.
- Formulating problems in a way that facilitates the *use a computer* and computerized tools to help solve them.
- *Generalizing* the problem-solving process to a wide variety of problems.

“*not waiting until students are at university*”

- Not all students go to university …
- Many students, whether they go to university or not, get exposed anyway to some IT techniques …
- All university disciplines today require informatics skills …
- … all university disciplines require analytic skills, for which informatics in primary and secondary schools is an excellent propaedeutic …

- **Recommendation 1.** *All students should benefit from education in **digital literacy**, starting from an early age and mastering the basic concepts by age 12. Digital literacy education should emphasize not only skills but also the principles and practices of using them effectively and ethically.*

- ***Recommendation 2.*** *All students should benefit from education in* ***informatics*** *as an independent scientific subject, studied both for its intrinsic intellectual and educational value and for its applications to other disciplines.*

- **Recommendation 3.** *A large-scale teacher training program should urgently be started. To bootstrap the process in the short term, creative solutions should be developed involving school teachers paired with experts from academia and industry.*

- **Recommendation 4.** *The definition of* ***informatics curricula*** *should rely on the considerable body of existing work on the topic and the specific recommendations of the present report*

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25-27 July 2013

Stephen Howell

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Scratch Conference
25-27 July 2013

Teaching programming with Scratch & Kinect

@saorog
Stephen Howell
Ireland

#scratch2013bcn

Teachers

CLIFFHANGER

Article on page 27

LISTING 1

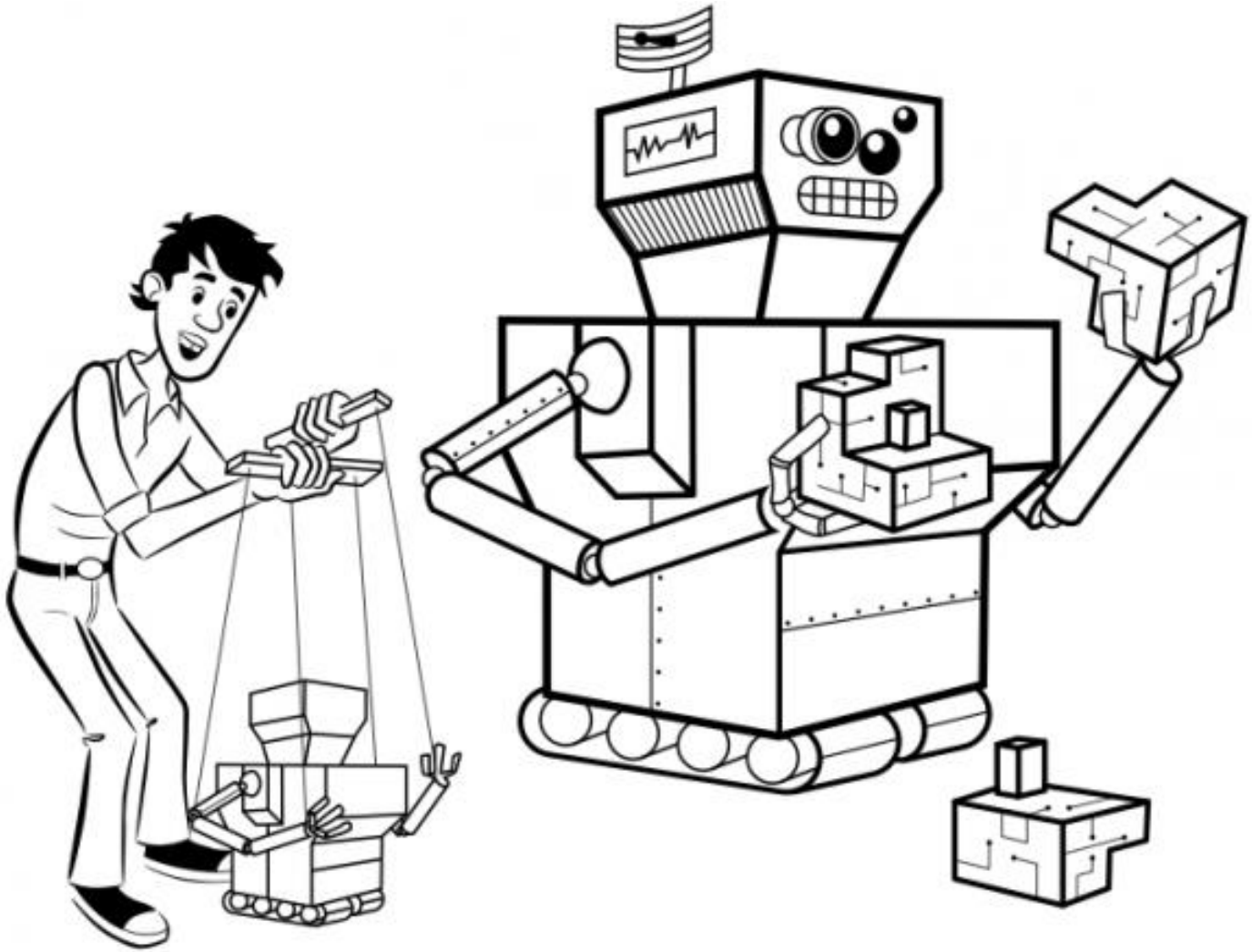
Don't type the TYPO II Codes!

```
VQ 5 REM CLIFFHANGER!
EK 6 REM BY HEATH LAWRENCE
FV 7 REM (c) 1986, ANTIC PUBLISHING
QM 10 GOSUB 610
TT 20 GOSUB 500:GOSUB 460:GOSUB 480:GOTO
   160
MP 30 REM MOVE DEBRIS
TI 40 OX=DX:DX=DX-0.5:IF DX<>INT(DX) THEN
   RETURN
NS 50 POKE 77,0:POKE SC+OX+20*DY,DP:IF DX
   <1 THEN GOSUB 350:GOSUB 460:RETURN
AU 60 DP=PEEK(SC+INT(DX)+20*DY):IF DP=172
   THEN GOSUB 210:GOTO 160
NU 70 POKE SC+INT(DX)+20*DY,240:RETURN
UO 80 REM DOWN
LW 90 GOSUB 40:POKE SC+PX+20*RY,107:RY=RY
   +1:RP=PEEK(SC+PX+20*RY):IF RP=240 THEN
   GOSUB 210:GOTO 160
LE 100 ON RP=168 GOSUB 290:ON RP=110 GOSU
   B 320:IF STRIG(0)<>0 OR RY>18 THEN GOS
   UB 130:GOTO 160
PI 110 POKE SC+PX+20*RY,172:GOTO 90
IR 120 REM UP
IT 130 FOR Y=RY TO 2 STEP -1:RP=PEEK(SC+P
   X+20*Y):IF RP=240 THEN RY=Y:GOSUB 210:
   GOTO 160
JB 140 POKE SC+PX+20*Y,172:POKE SC+PX+20*
   Y,0:NEXT Y:POKE SC+PX+20*2,172:RETURN
QV 150 REM PULLY
LR 160 GOSUB 40:S=STICK(0):SOUND 1,0,0,0:
   IF STRIG(0)=0 THEN RY=2:GOTO 90
ZL 170 ON S=15 GOTO 160
CL 180 SOUND 1,255,6,8:POKE SC+PX+20*1,98
   :POKE SC+PX+20*2,0:PX=PX-1*(S=11)+1*(S
   =7):PX=PX-1*(PX>18)+1*(PX<1)
PI 190 POKE SC+PX+20*1,33:POKE SC+PX+20*2
   ,172:GOTO 160
GN 200 REM GOT DEBRIS
GY 210 FOR Y=RY TO 2 STEP -1:POKE SC+PX+2
   0*Y,173:FOR D=1 TO 30:NEXT D:POKE SC+P
   X+20*Y,0:NEXT Y
OR 211 POKE SC+PX+20*2,172
HP 220 FOR X=PX TO 1 STEP -1:SOUND 1,255,
   6,8:POKE SC+X+20*1,33:POKE SC+X+20*2,1
   73:FOR D=1 TO 30:NEXT D:PX=1
BR 230 POKE SC+X+20*1,98:POKE SC+X+20*2,0
   :NEXT X:POKE SC+21,33:POKE SC+41,172:F
   OR D=1 TO 25:NEXT D
XV 231 FOR Y=3 TO 20
XK 240 POKE SC+1+20*Y,240:FOR D=1 TO 15:N
   EXT D:POKE SC+1+20*Y,0:SOUND 1,Y,10,8:
   NEXT Y:FOR X=1 TO 10 STEP 0.2
CW 250 SOUND 1,10,8,X:POKE SC+401,182
PK 251 IF X>5 THEN POKE SC+401,183:NEXT X
   :POKE SC+401,0:FOR X=10 TO 0 STEP -0.3
FX 260 SOUND 1,10,8,X:NEXT X:FOR X=1 TO D
   Y:SCO=SCO+1:FOR J=1 TO 50 STEP 9:SOUND
    1,J,8,10:SOUND 1,0,0,0:NEXT J
VY 270 GOSUB 480:NEXT X:GOSUB 460:RETURN
OV 280 REM HIT GRUD
QP 290 FOR X=1 TO 5:FOR Z=1 TO 50 STEP 5:
   SOUND 1,Z,10,8:SOUND 2,Z+50,10,8:NEXT
   Z:SCO=SCO-1:IF SCO<0 THEN SCO=0
KR 300 GOSUB 480:NEXT X:SOUND 1,0,0,0:SOU
   ND 2,0,0,0:RETURN
QQ 310 REM HIT GAS BUBBLE
WW 320 FOR X=100 TO 255 STEP 4:SOUND 1,X,
   8,8:POKE SC+PX+20*RY,246:POKE SC+PX+20
   *RY,119:NEXT X
JO 321 POKE SC+PX+20*RY,117
ML 330 SOUND 1,0,0,0:FOR D=1 TO 100:NEXT
   D:GOTO 420
FZ 340 REM DEBRIS IMPACTS
OS 350 FOR X=100 TO 255 STEP 4:SOUND 1,X,
   8,8:POKE SC+20*DY,246:POKE SC+20*DY,11
   9:NEXT X
MO 351 POKE SC+20*DY,248:DA=DA+1
BE 360 SOUND 1,0,0,0:GOSUB 480:ON DA=5 GO
   TO 380:RETURN
XG 370 REM COLLAPSE!
FN 380 FOR Y=1 TO 19:POSITION 1,Y:? #6;RO
   PE$:FOR D=1 TO 15:NEXT D:POSITION 1,Y:
   ? #6;BL$:SOUND 1,Y+50,10,8
MQ 381 NEXT Y
UN 390 FOR Y=1 TO 19:SOUND 1,Y+200,8,8:PO
   SITION 0,Y:? #6;"D":FOR D=1 TO 15:NEXT
    D:POSITION 0,Y:? #6;" "
MS 391 NEXT Y
YY 400 RESTORE 730:FOR Y=20 TO 15 STEP -1
   :READ Z:FOR X=0 TO 6-Z:POSITION X,Y:?
   #6;"M":NEXT X:FOR D=1 TO 20
DZ 401 NEXT D
RV 410 NEXT Y:SOUND 1,0,0,0:FOR D=1 TO 35
   0:NEXT D
LW 420 GRAPHICS 17:POKE 756,224:POSITION
   4,5:? #6;"GAME OVER":POSITION 5,10:?
    #6;"SCORE:";SCO:POSITION 5,11
RC 430 ? #6;"      ":POSITION 3,16:? #6;"P
   RESS <START>"
UU 440 ON PEEK(53279)<>6 GOTO 440:GOTO 20
QZ 450 REM GET DEBRIS Y
```

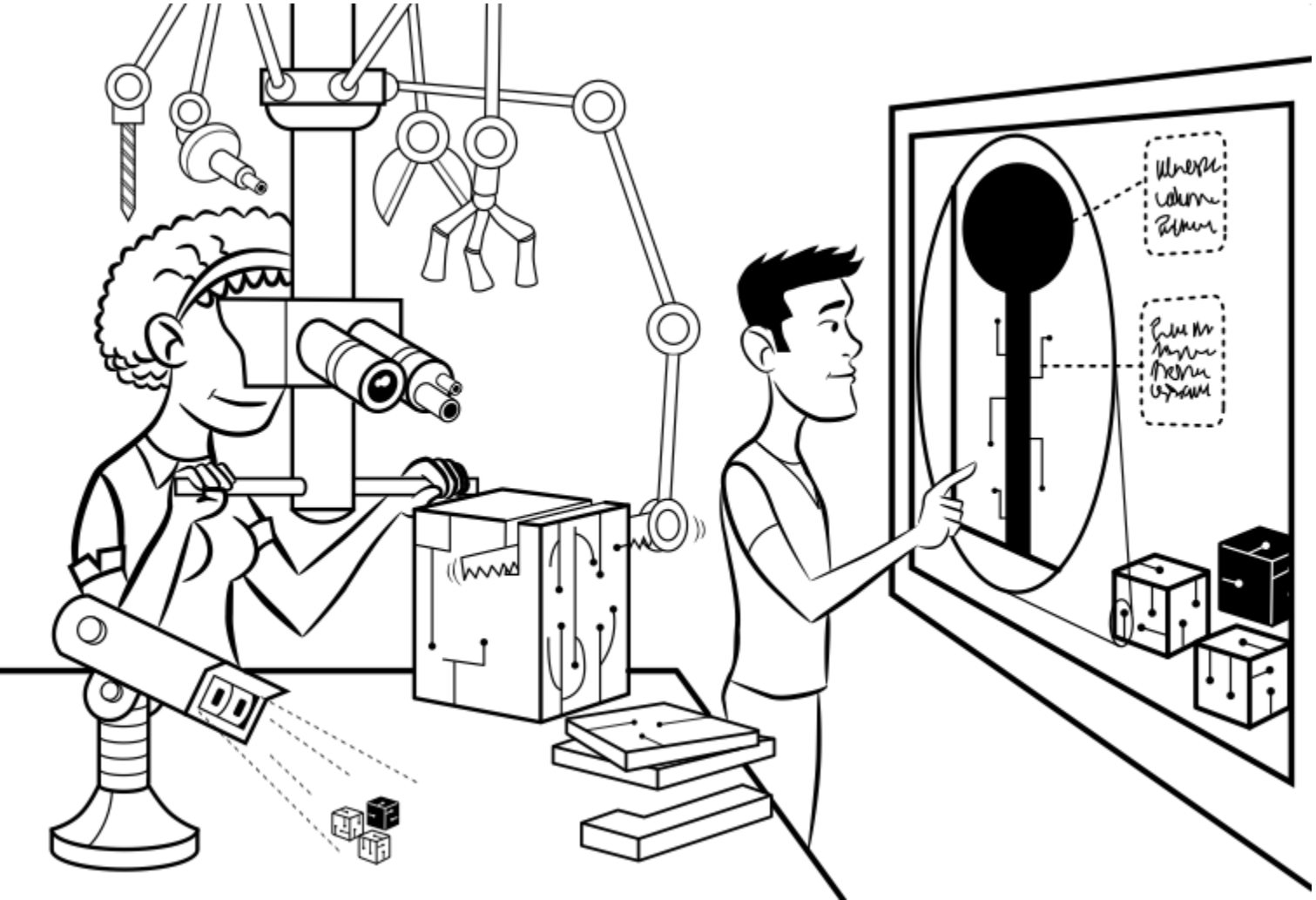

Syntax Error?

Third Level
‘Programming’ Courses?

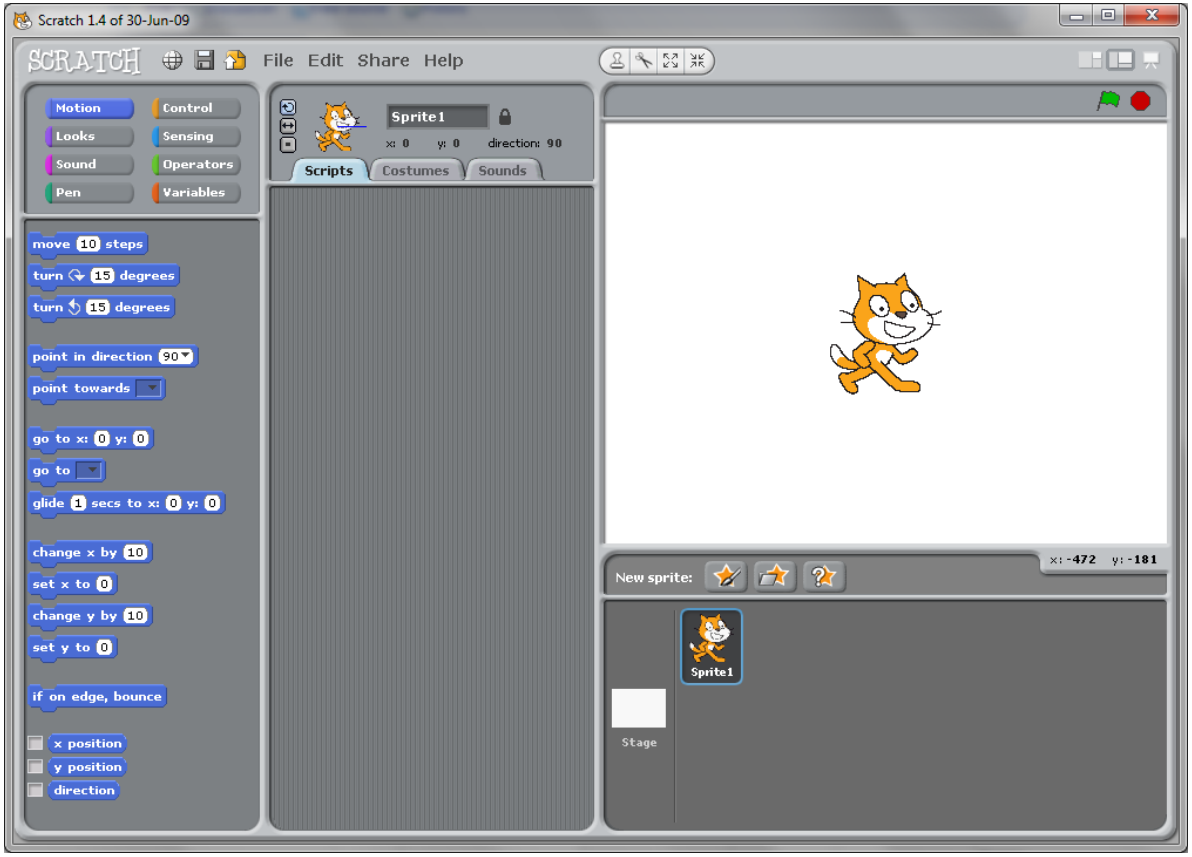
Computational Thinking

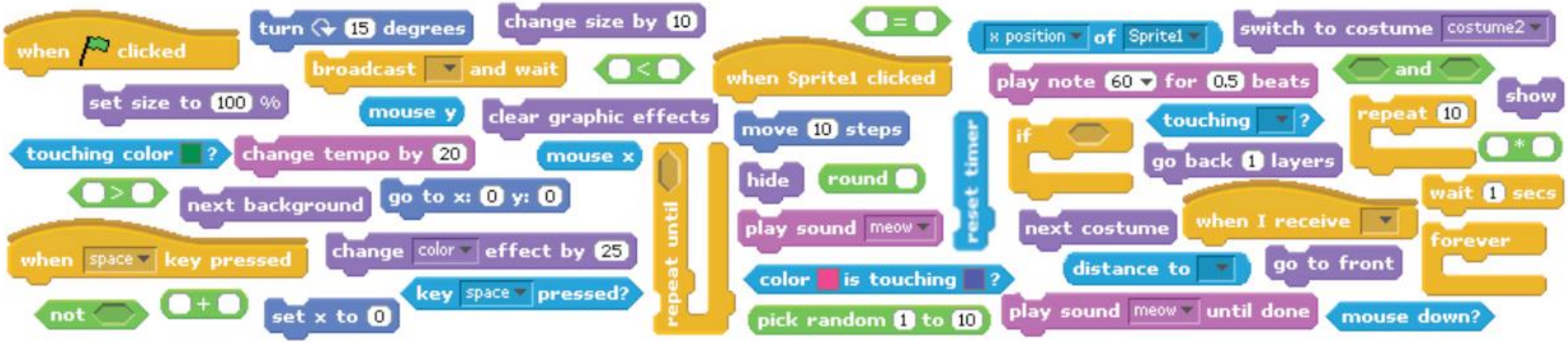


Teach the 3 Ds: Design Develop Debug



SCRATCH


Scratch 1.4 of 30-Jun-09
SCRATCH
File Edit Share Help
Motion
Control
Looks
Sensing
Sound
Operators
Pen
Variables
move 10 steps
turn 15 degrees
turn 15 degrees
point in direction 90
point towards
go to x: 0 y: 0
go to
glide 1 secs to x: 0 y: 0
change x by 10
set x to 0
change y by 10
set y to 0
if on edge, bounce
x position
y position
direction
Sprite1
x: 0 y: 0 direction: 90
Scripts
Costumes
Sounds
New sprite:
x: -472 y: -181
Sprite1
Stage



WAIT

Insert a pause

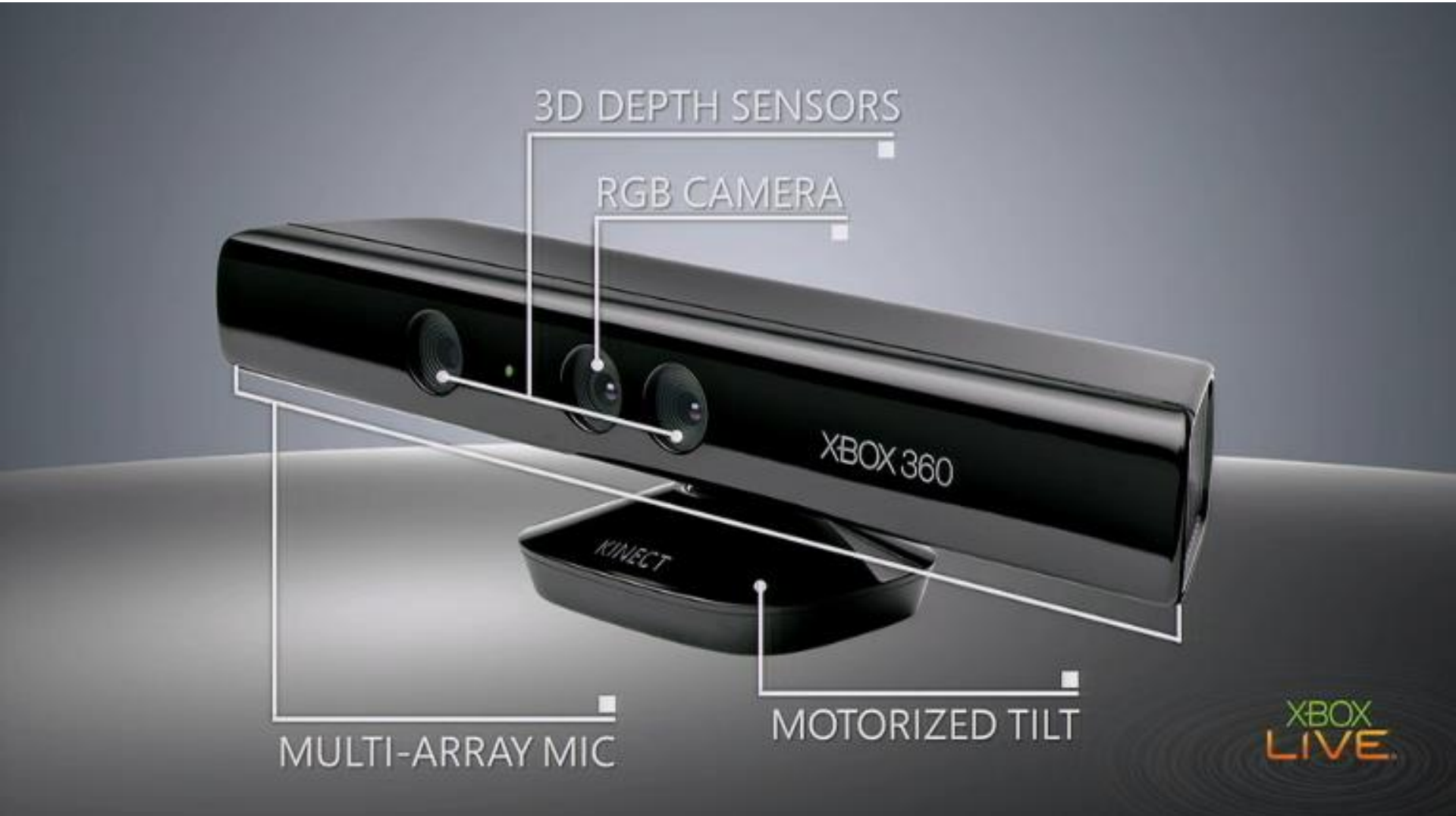
SAY/THINK

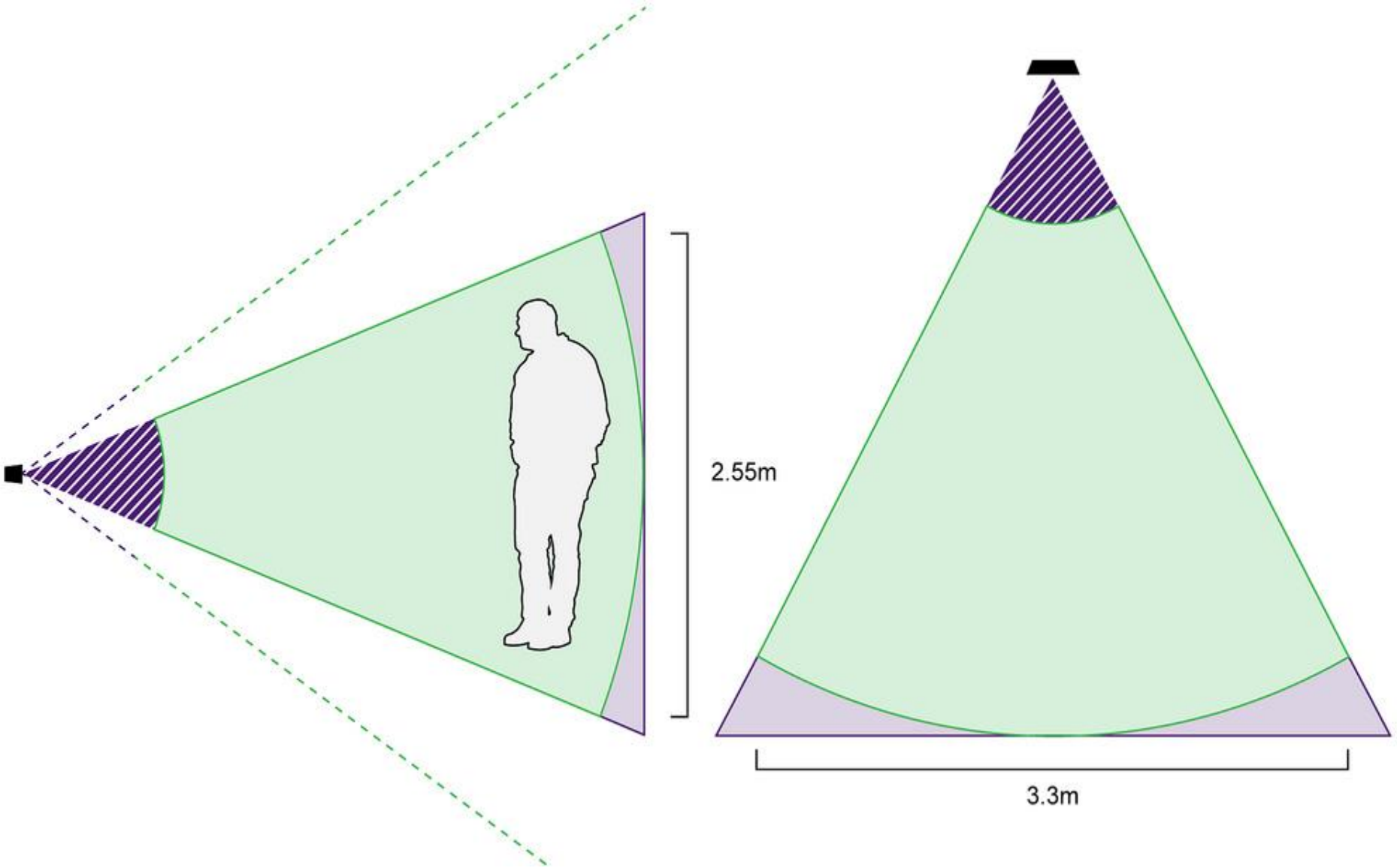
Have a speech or thought bubble appear over a sprite

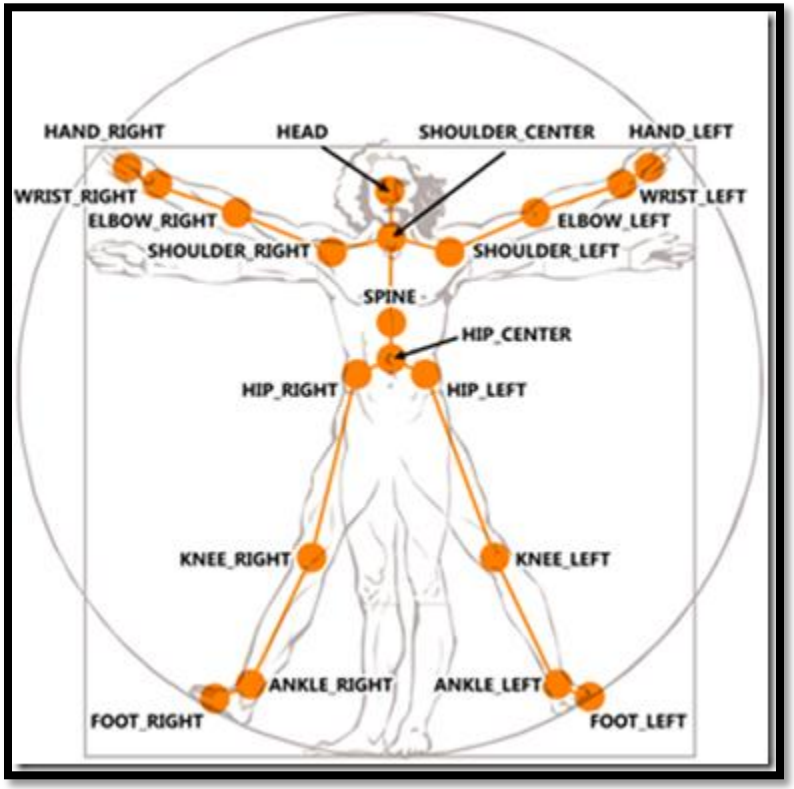
SOUNDS

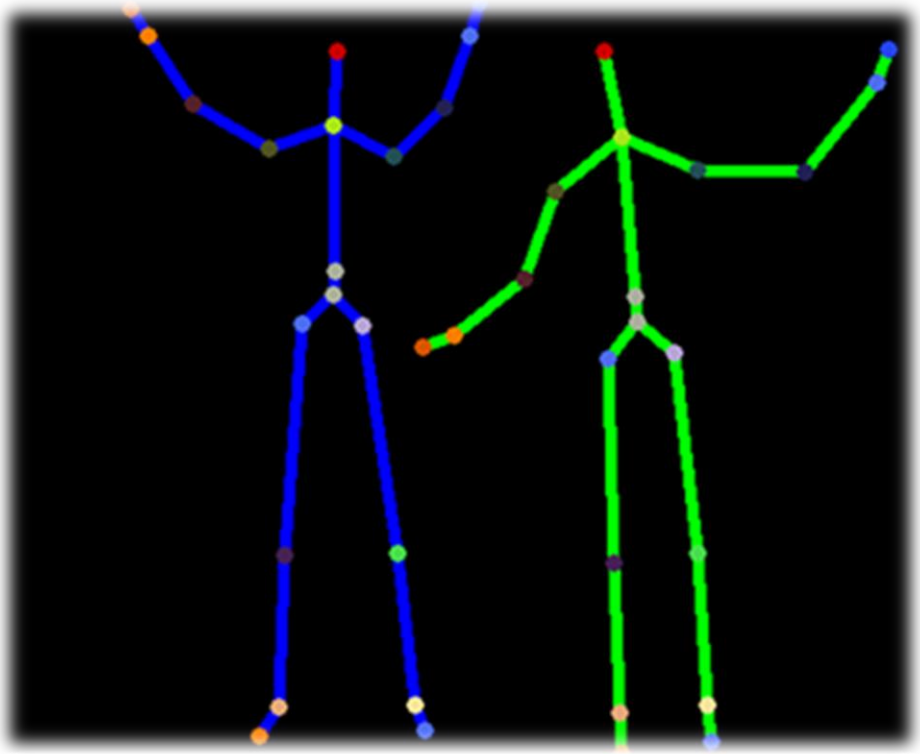
Play recorded audio

Microsoft Kinect




2.55m
3.3m

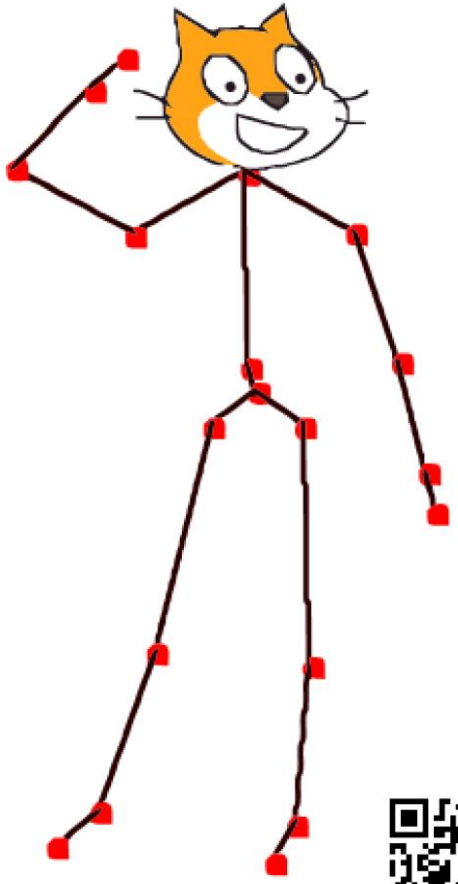

HAND_RIGHT
HEAD
SHOULDER_CENTER
HAND_LEFT
WRIST_RIGHT
WRIST_LEFT
ELBOW_RIGHT
ELBOW_LEFT
SHOULDER_RIGHT
SHOULDER_LEFT
SPINE
HIP_CENTER
HIP_RIGHT
HIP_LEFT
KNEE_RIGHT
KNEE_LEFT
ANKLE_RIGHT
ANKLE_LEFT
FOOT_RIGHT
FOOT_LEFT



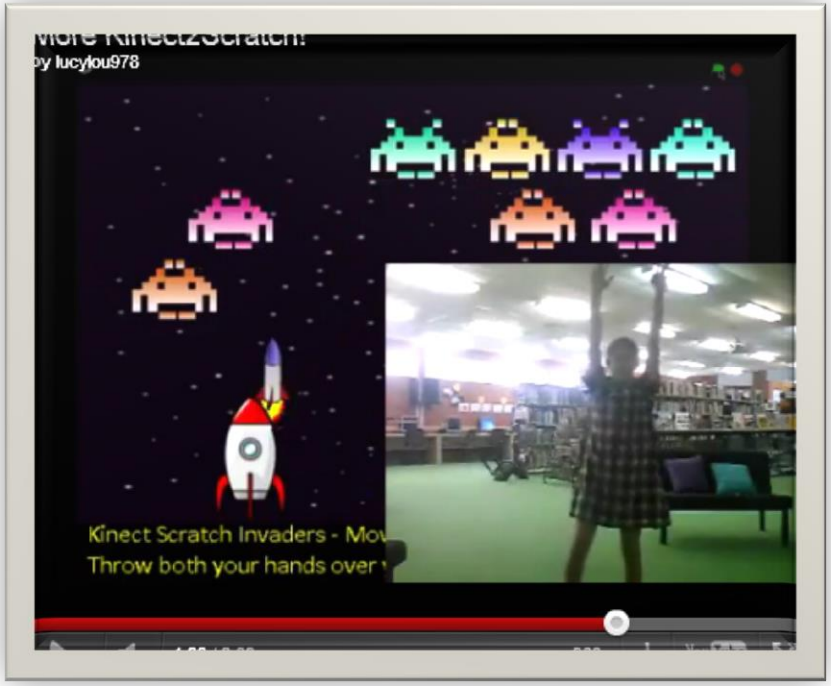
Kinect2Scratch

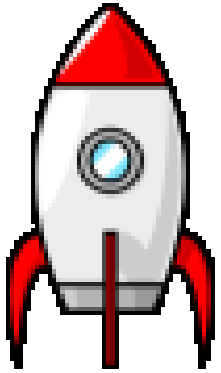
+

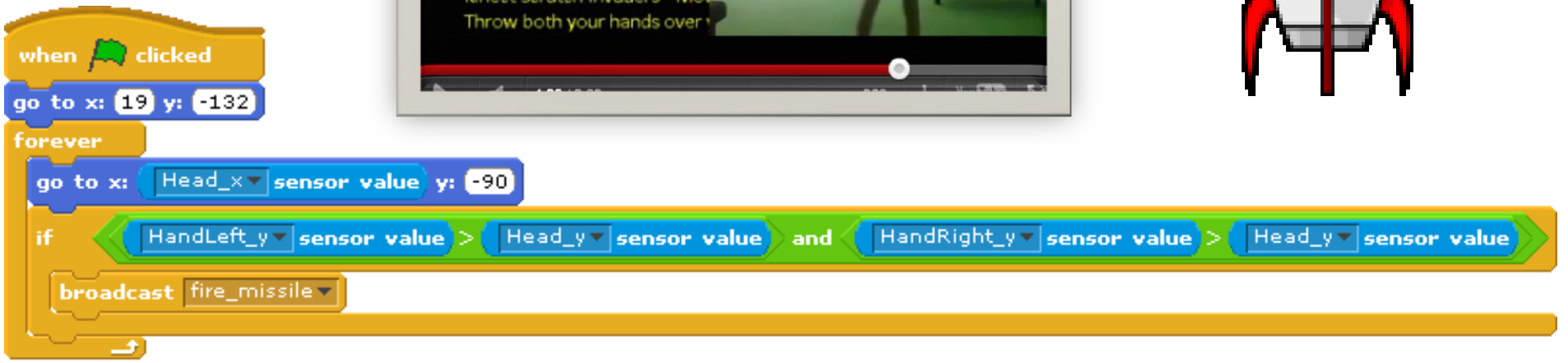
=



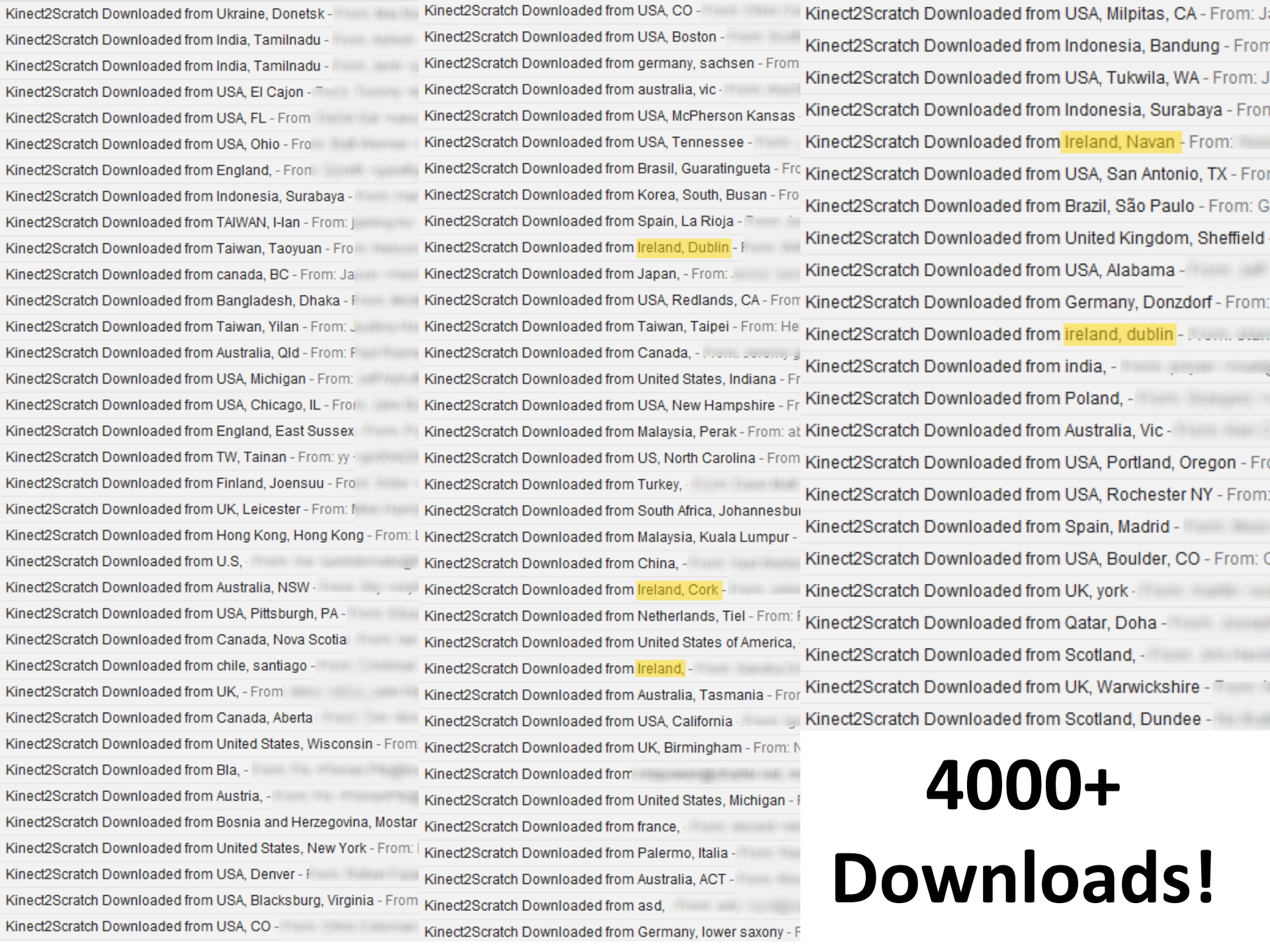
Kinect2Scratch Space Invaders







Kinect2Scratch Breakout


Kinect2Scratch Downloaded from Ukraine, Donetsk -
Kinect2Scratch Downloaded from India, Tamilnadu -
Kinect2Scratch Downloaded from India, Tamilnadu -
Kinect2Scratch Downloaded from USA, El Cajon -
Kinect2Scratch Downloaded from USA, FL - From
Kinect2Scratch Downloaded from USA, Ohio - Fro
Kinect2Scratch Downloaded from England, - Fron
Kinect2Scratch Downloaded from Indonesia, Surabaya -
Kinect2Scratch Downloaded from TAIWAN, I-lan - From:
Kinect2Scratch Downloaded from Taiwan, Taoyuan - Fro
Kinect2Scratch Downloaded from canada, BC - From: Ja
Kinect2Scratch Downloaded from Bangladesh, Dhaka -
Kinect2Scratch Downloaded from Taiwan, Yilan - From:
Kinect2Scratch Downloaded from Australia, Qld - From:
Kinect2Scratch Downloaded from USA, Michigan - From:
Kinect2Scratch Downloaded from USA, Chicago, IL - Fro
Kinect2Scratch Downloaded from England, East Sussex
Kinect2Scratch Downloaded from TW, Tainan - From: yy
Kinect2Scratch Downloaded from Finland, Joensuu - Fro
Kinect2Scratch Downloaded from UK, Leicester - From:
Kinect2Scratch Downloaded from Hong Kong, Hong Kong - From:
Kinect2Scratch Downloaded from U.S,
Kinect2Scratch Downloaded from Australia, NSW -
Kinect2Scratch Downloaded from USA, Pittsburgh, PA -
Kinect2Scratch Downloaded from Canada, Nova Scotia
Kinect2Scratch Downloaded from chile, santiago -
Kinect2Scratch Downloaded from UK, - From
Kinect2Scratch Downloaded from Canada, Aberta
Kinect2Scratch Downloaded from United States, Wisconsin - From:
Kinect2Scratch Downloaded from Bla, -
Kinect2Scratch Downloaded from Austria, -
Kinect2Scratch Downloaded from Bosnia and Herzegovina, Mostar
Kinect2Scratch Downloaded from United States, New York - From:
Kinect2Scratch Downloaded from USA, Denver -
Kinect2Scratch Downloaded from USA, Blacksburg, Virginia - From
Kinect2Scratch Downloaded from USA, CO -
Kinect2Scratch Downloaded from USA, CO -
Kinect2Scratch Downloaded from USA, Boston -
Kinect2Scratch Downloaded from germany, sachsen - From
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Kinect2Scratch Downloaded from USA, McPherson Kansas
Kinect2Scratch Downloaded from USA, Tennessee -
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Kinect2Scratch Downloaded from Korea, South, Busan - Fro
Kinect2Scratch Downloaded from Spain, La Rioja -
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Kinect2Scratch Downloaded from Taiwan, Taipei - From: He
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Kinect2Scratch Downloaded from United States, Indiana - Fr
Kinect2Scratch Downloaded from USA, New Hampshire - Fr
Kinect2Scratch Downloaded from Malaysia, Perak - From: ab
Kinect2Scratch Downloaded from US, North Carolina - From
Kinect2Scratch Downloaded from Turkey,
Kinect2Scratch Downloaded from South Africa, Johannesbu
Kinect2Scratch Downloaded from Malaysia, Kuala Lumpur -
Kinect2Scratch Downloaded from China, -
Kinect2Scratch Downloaded from Ireland, Cork -
Kinect2Scratch Downloaded from Netherlands, Tiel - From:
Kinect2Scratch Downloaded from United States of America,
Kinect2Scratch Downloaded from Ireland, -
Kinect2Scratch Downloaded from Australia, Tasmania - Fror
Kinect2Scratch Downloaded from USA, California
Kinect2Scratch Downloaded from UK, Birmingham - From:
Kinect2Scratch Downloaded from
Kinect2Scratch Downloaded from United States, Michigan -
Kinect2Scratch Downloaded from france,
Kinect2Scratch Downloaded from Palermo, Italia -
Kinect2Scratch Downloaded from Australia, ACT -
Kinect2Scratch Downloaded from asd,
Kinect2Scratch Downloaded from Germany, lower saxony -
Kinect2Scratch Downloaded from USA, Milpitas, CA - From:
Kinect2Scratch Downloaded from Indonesia, Bandung - From
Kinect2Scratch Downloaded from USA, Tukwila, WA - From:
Kinect2Scratch Downloaded from Indonesia, Surabaya - From
Kinect2Scratch Downloaded from Ireland, Navan - From:
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Kinect2Scratch Downloaded from Germany, Donzdorf - From:
Kinect2Scratch Downloaded from ireland, dublin -
Kinect2Scratch Downloaded from india, -
Kinect2Scratch Downloaded from Poland, -
Kinect2Scratch Downloaded from Australia, Vic -
Kinect2Scratch Downloaded from USA, Portland, Oregon - Fro
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Kinect2Scratch Downloaded from UK, york -
Kinect2Scratch Downloaded from Qatar, Doha -
Kinect2Scratch Downloaded from Scotland, -
Kinect2Scratch Downloaded from UK, Warwickshire -
Kinect2Scratch Downloaded from Scotland, Dundee -
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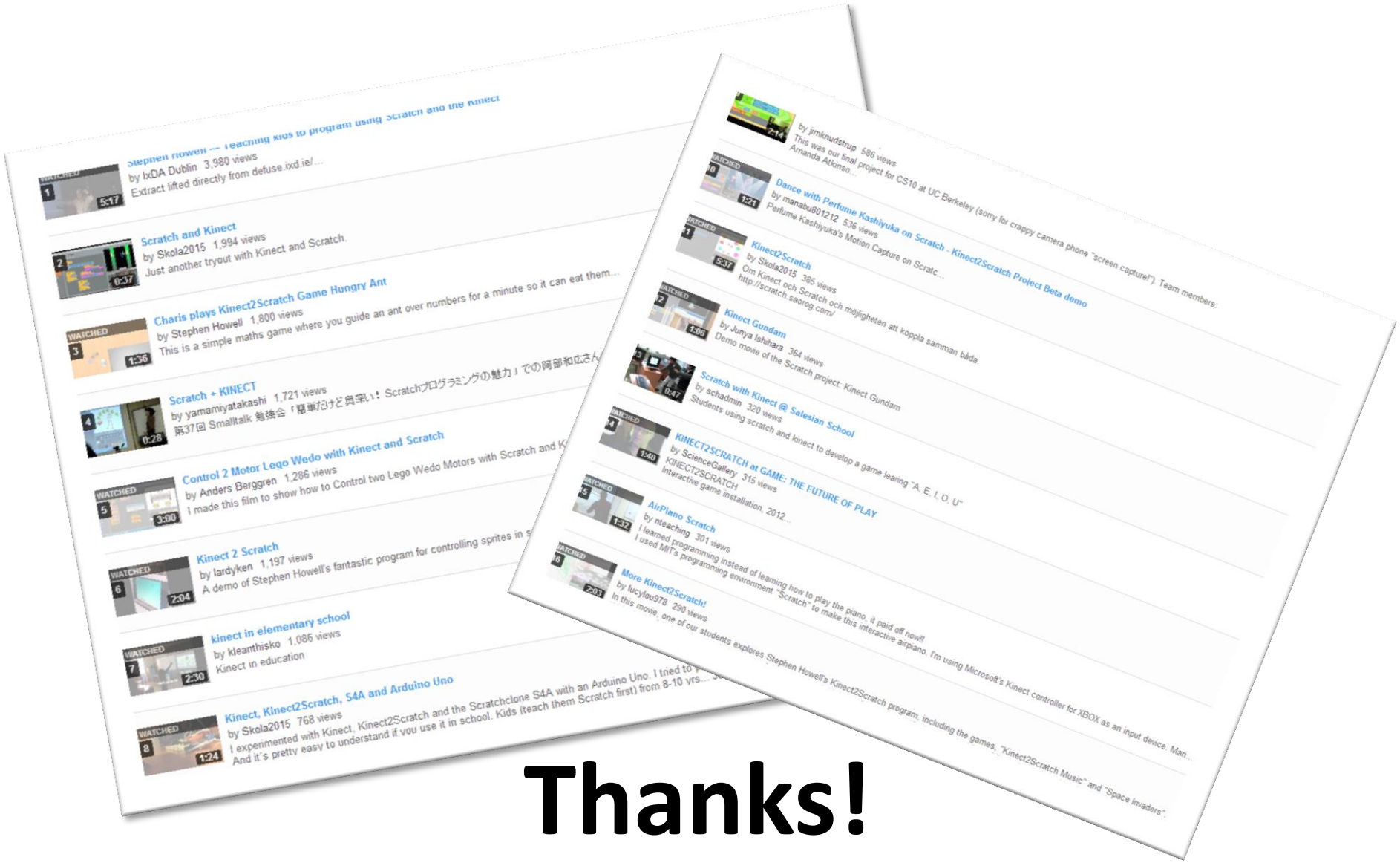

Thanks!

lero THE IRISH SOFTWARE ENGINEERING RESEARCH CENTRE

CoderDojo

Design
Develop
Debug

(the curricula)

NCCA

An Chomhairle Náisiúnta Curaclaim agus Measúnachta
National Council for Curriculum and Assessment

Microsoft

ITT DUBLIN
CELEBRATING 20 YEARS
Institute of Technology Tallaght
Institiúid Teicneolaíochta Tamhlacht
20

Come to Scratch Day in May

(bring your students)

Irish Scratchers, enter annual Scratch Competition run by Clare McInerney (Lero.ie) & hosted by ITTDublin

Learn Scratch
Teach Scratch

www.scratch.ie
www.cesi.ie
www.lero.ie

www.ittdublin.ie
scratch.saorog.com

Connor Hudson

Snap! and the Real World

Connor Hudson

I see much deeper and broader reasons for learning to code. In the process of learning to code, people learn many other things. They are not just learning to code, they are coding to learn. In addition to learning mathematical and computational ideas (such as variables and conditionals), they are also learning strategies for solving problems, designing projects, and communicating ideas. -Mitch Resnick

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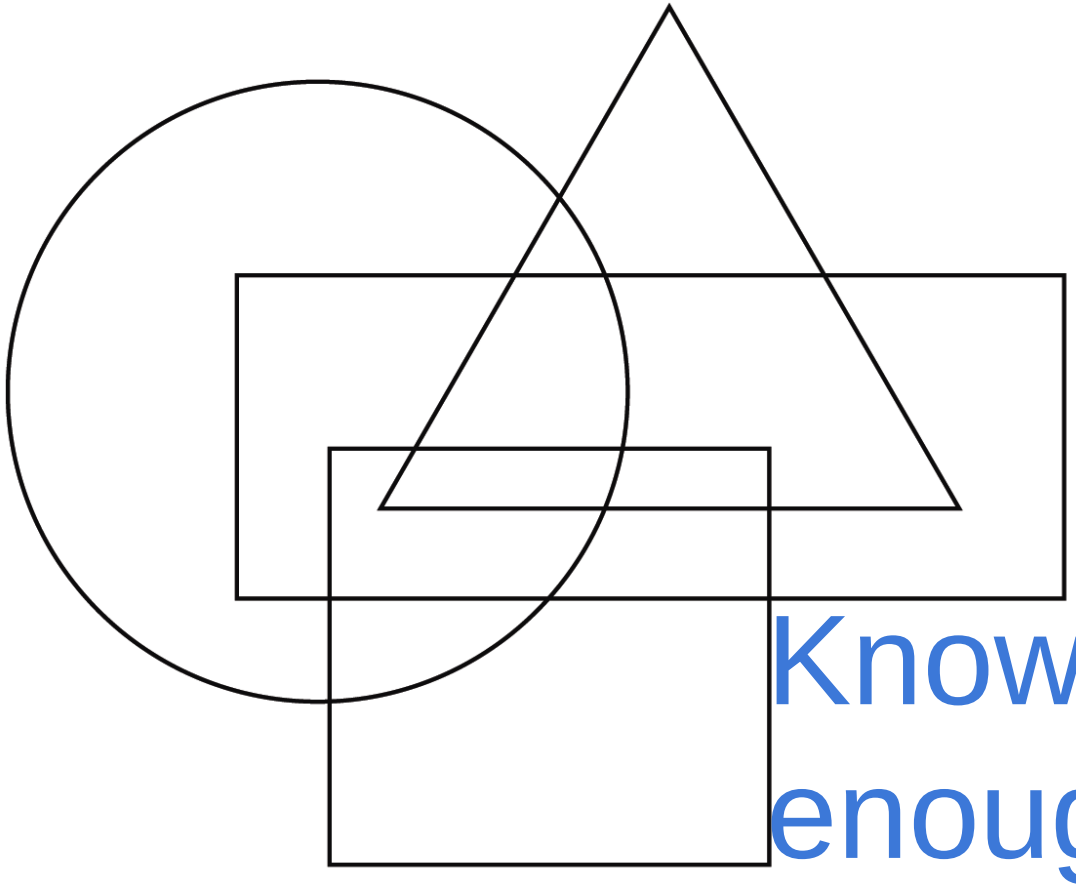

Knowing is not enough. We must apply.
-Leonardo da Vinci

We keep moving forward, opening new doors, and doing new things, because we're curious and curiosity keeps leading us down new paths.

-Walt Disney

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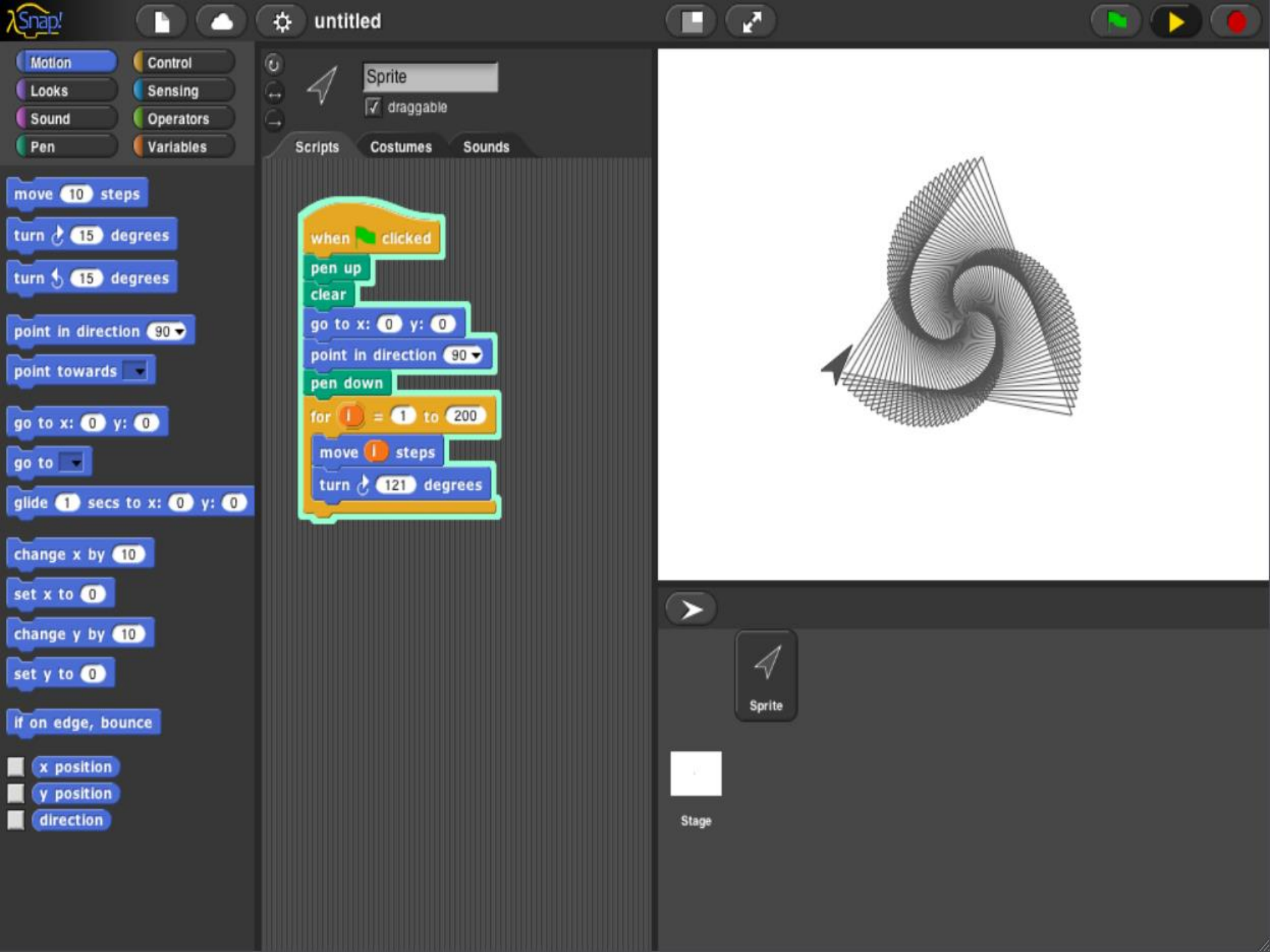
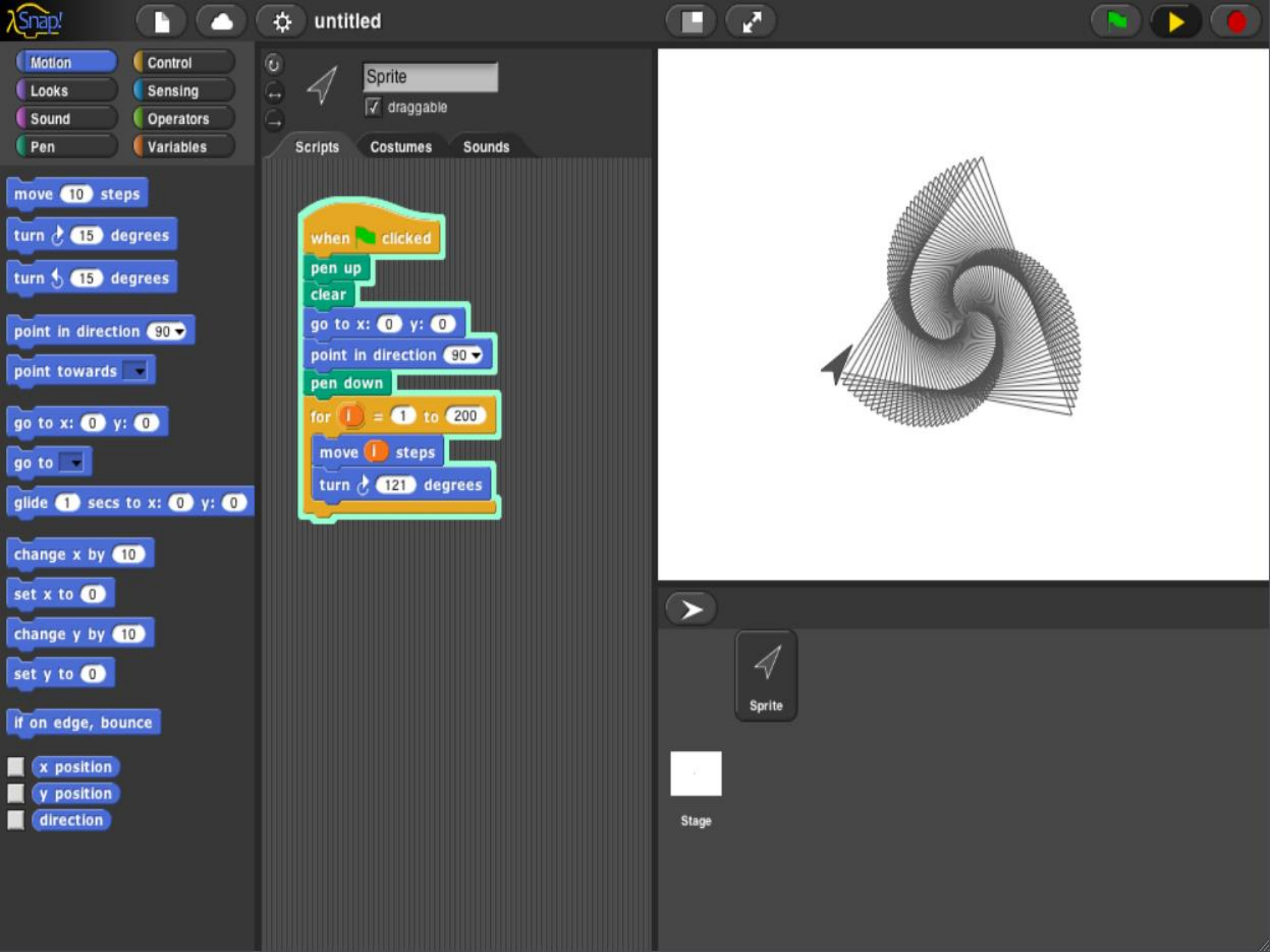
-Walt Disney


You are here.


λSnap!


λSnap!


Snap!
untitled
Motion
Control
Looks
Sensing
Sound
Operators
Pen
Variables
move 10 steps
turn 15 degrees
turn 15 degrees
point in direction 90
point towards
go to x: 0 y: 0
go to
glide 1 secs to x: 0 y: 0
change x by 10
set x to 0
change y by 10
set y to 0
if on edge, bounce
x position
y position
direction
Sprite
draggable
Scripts
Costumes
Sounds
when clicked
pen up
clear
go to x: 0 y: 0
point in direction 90
pen down
for i = 1 to 200
move i steps
turn 121 degrees
Sprite
Stage


Snap!
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Motion
Control
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Variables
move 10 steps
turn 15 degrees
turn 15 degrees
point in direction 90
point towards
go to x: 0 y: 0
go to
glide 1 secs to x: 0 y: 0
change x by 10
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if on edge, bounce
x position
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pen up
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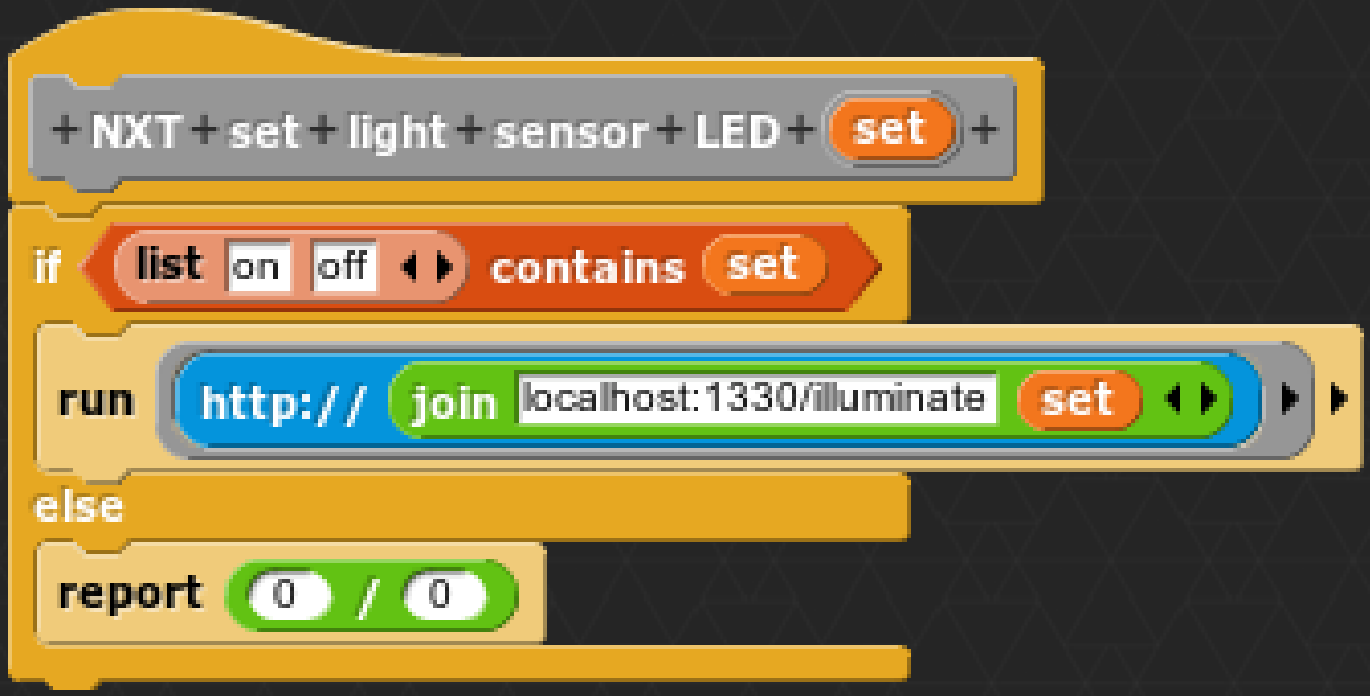
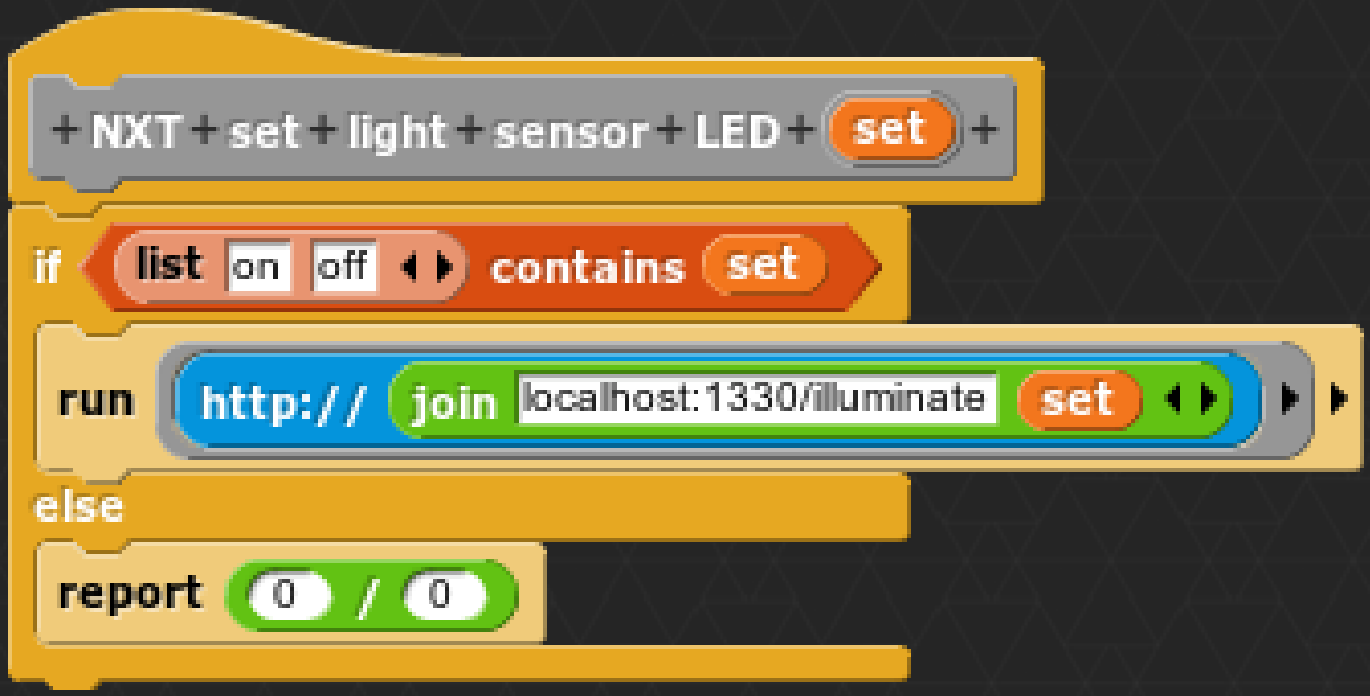

+ NXT + set + light + sensor + LED + set +
if list on off contains set
run http:// join localhost:1330/illuminate set
else
report 0 / 0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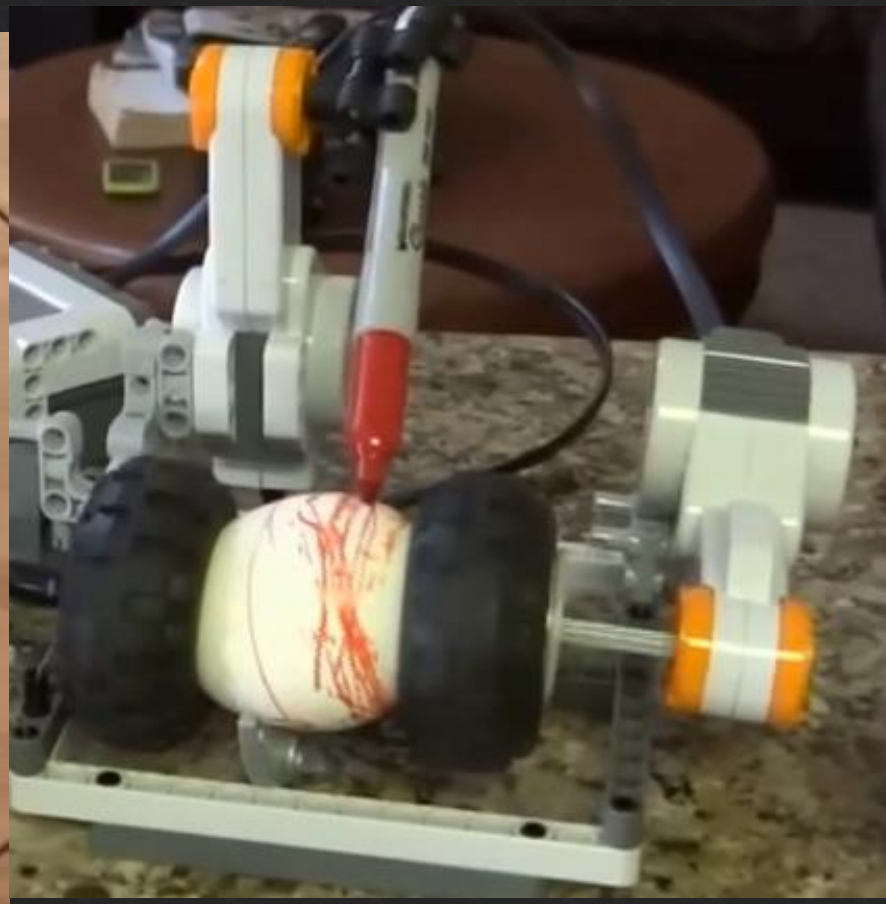
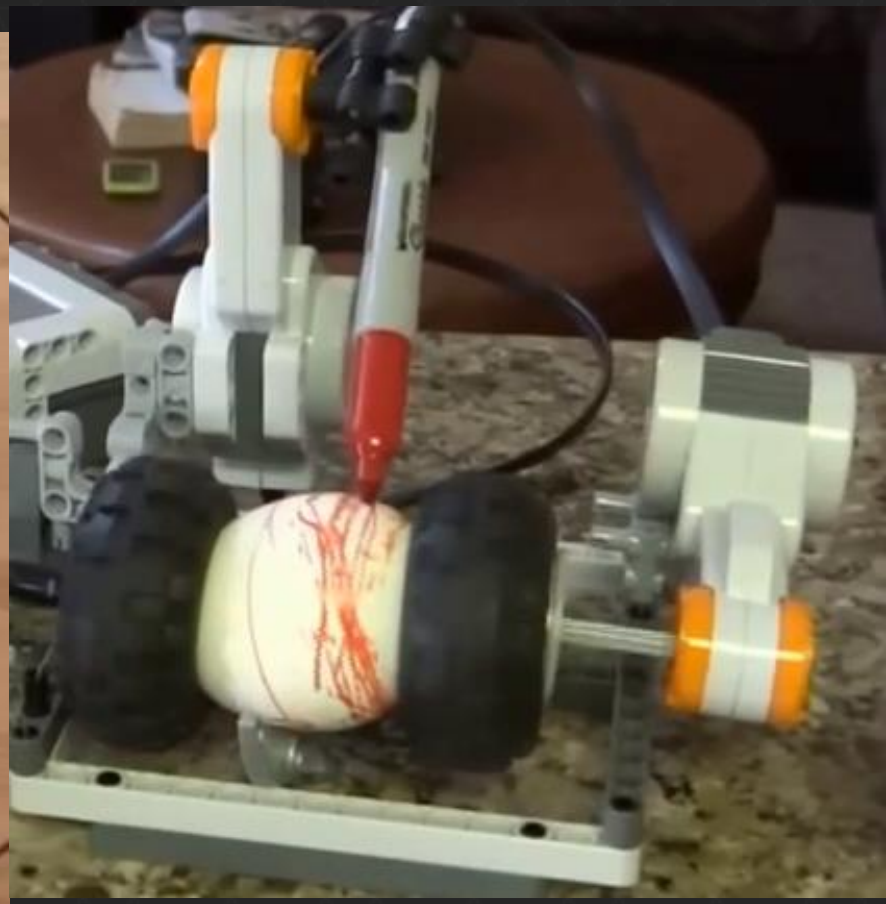
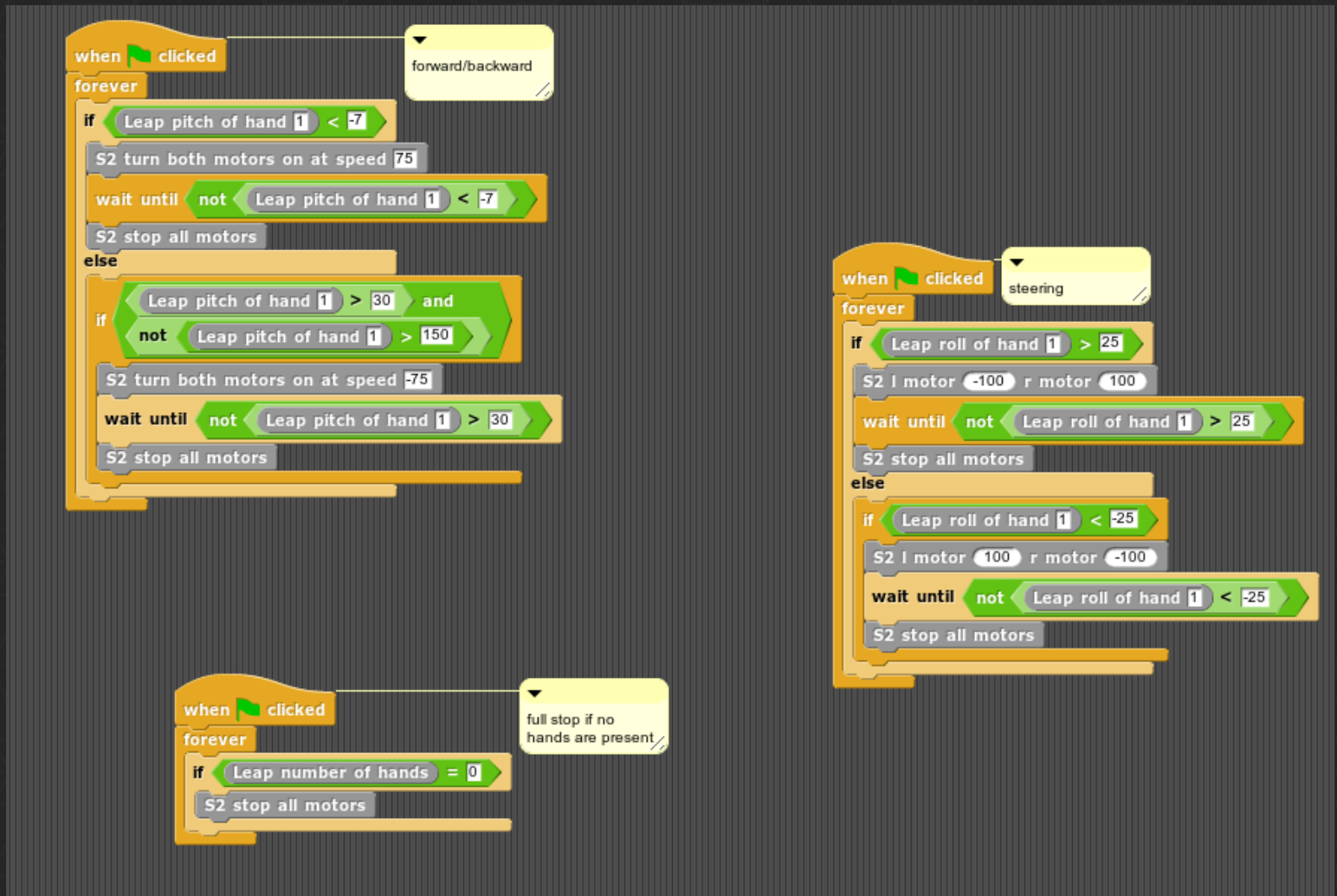
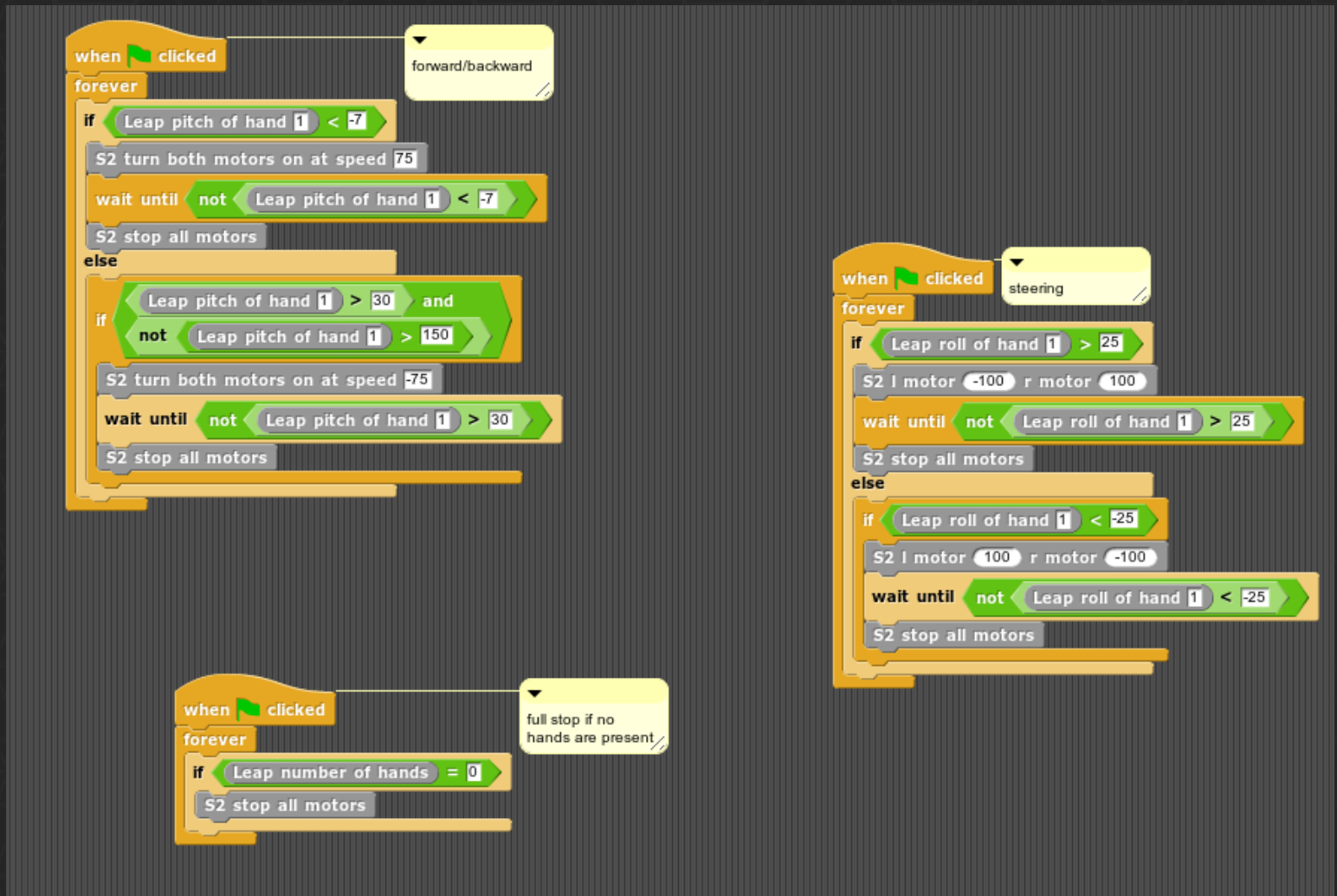




Live Demo


when clicked
forever
forward/backward
if Leap pitch of hand 1 < -7
S2 turn both motors on at speed 75
wait until not Leap pitch of hand 1 < -7
S2 stop all motors
else
if Leap pitch of hand 1 > 30 and not Leap pitch of hand 1 > 150
S2 turn both motors on at speed -75
wait until not Leap pitch of hand 1 > 30
S2 stop all motors
when clicked
forever
steering
if Leap roll of hand 1 > 25
S2 l motor -100 r motor 100
wait until not Leap roll of hand 1 > 25
S2 stop all motors
else
if Leap roll of hand 1 < -25
S2 l motor 100 r motor -100
wait until not Leap roll of hand 1 < -25
S2 stop all motors
when clicked
forever
full stop if no hands are present
if Leap number of hands = 0
S2 stop all motors

Live Demo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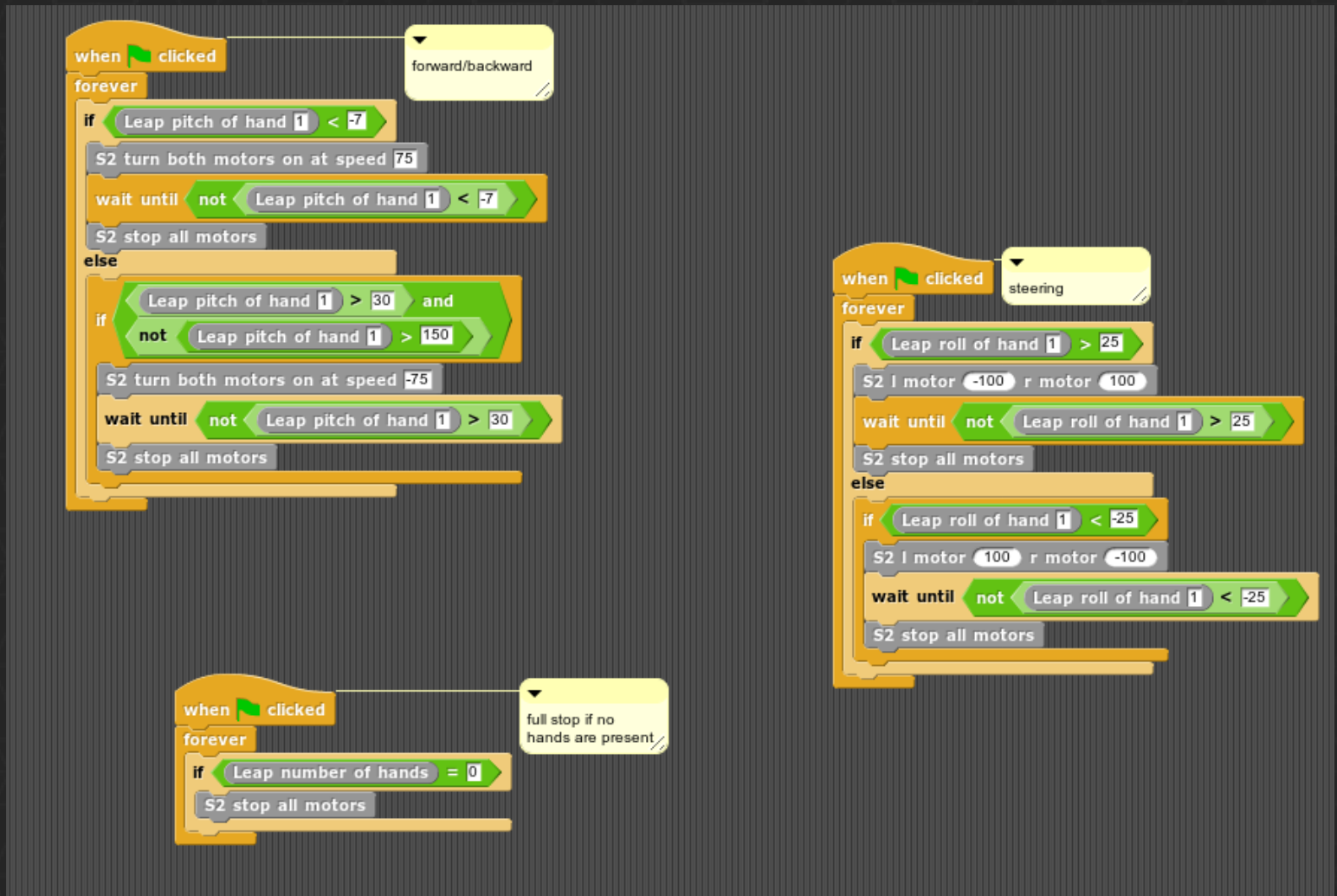
if Leap roll of hand 1 < -25
S2 l motor 100 r motor -100
wait until not Leap roll of hand 1 < -25
S2 stop all motors
when clicked
forever
full stop if no hands are present
if Leap number of hands = 0
S2 stop all motors

Live Demo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S2 stop all motors
when clicked
forever
steering
if Leap roll of hand 1 > 25
S2 l motor -100 r motor 100
wait until not Leap roll of hand 1 > 25
S2 stop all motors
else
if Leap roll of hand 1 < -25
S2 l motor 100 r motor -100
wait until not Leap roll of hand 1 < -25
S2 stop all motors
when clicked
forever
full stop if no hands are present
if Leap number of hands = 0
S2 stop all motors

Thank you!

http://technoboy10.github.io/ignite

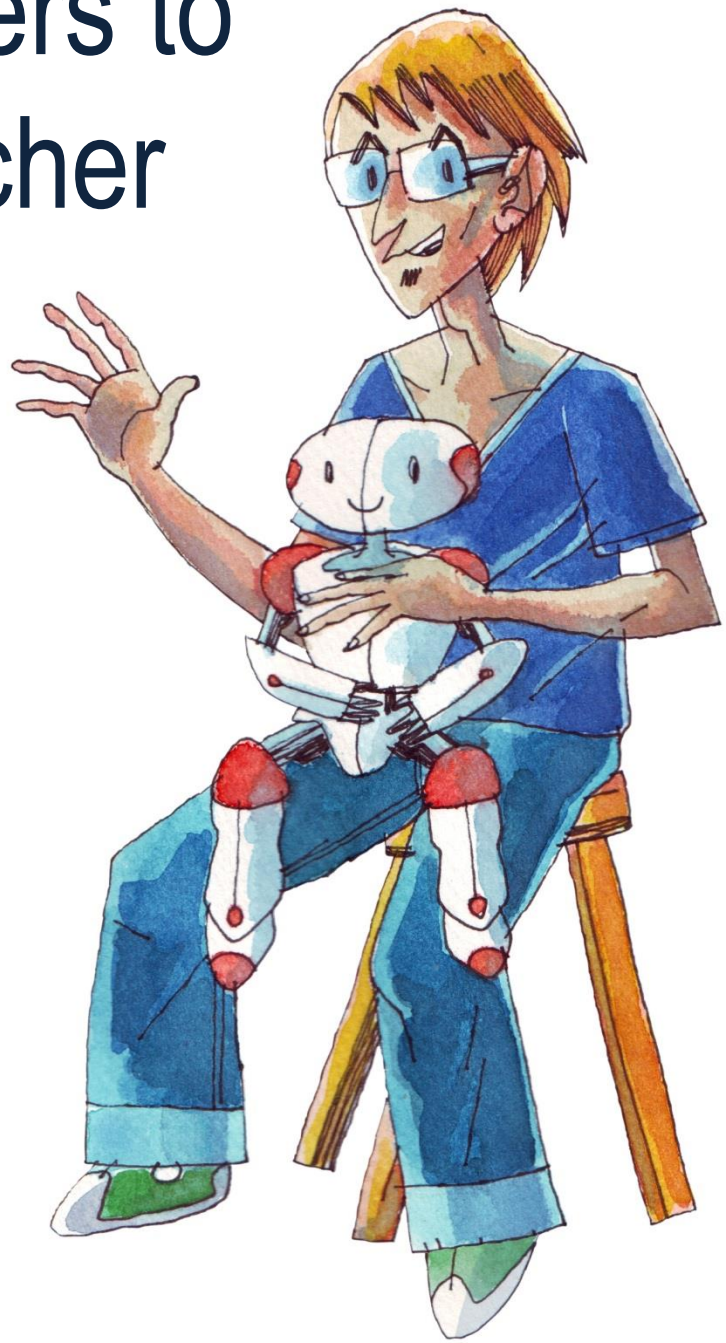
SCRATCH • CONNECTING • WORLDS

Scratch Conference

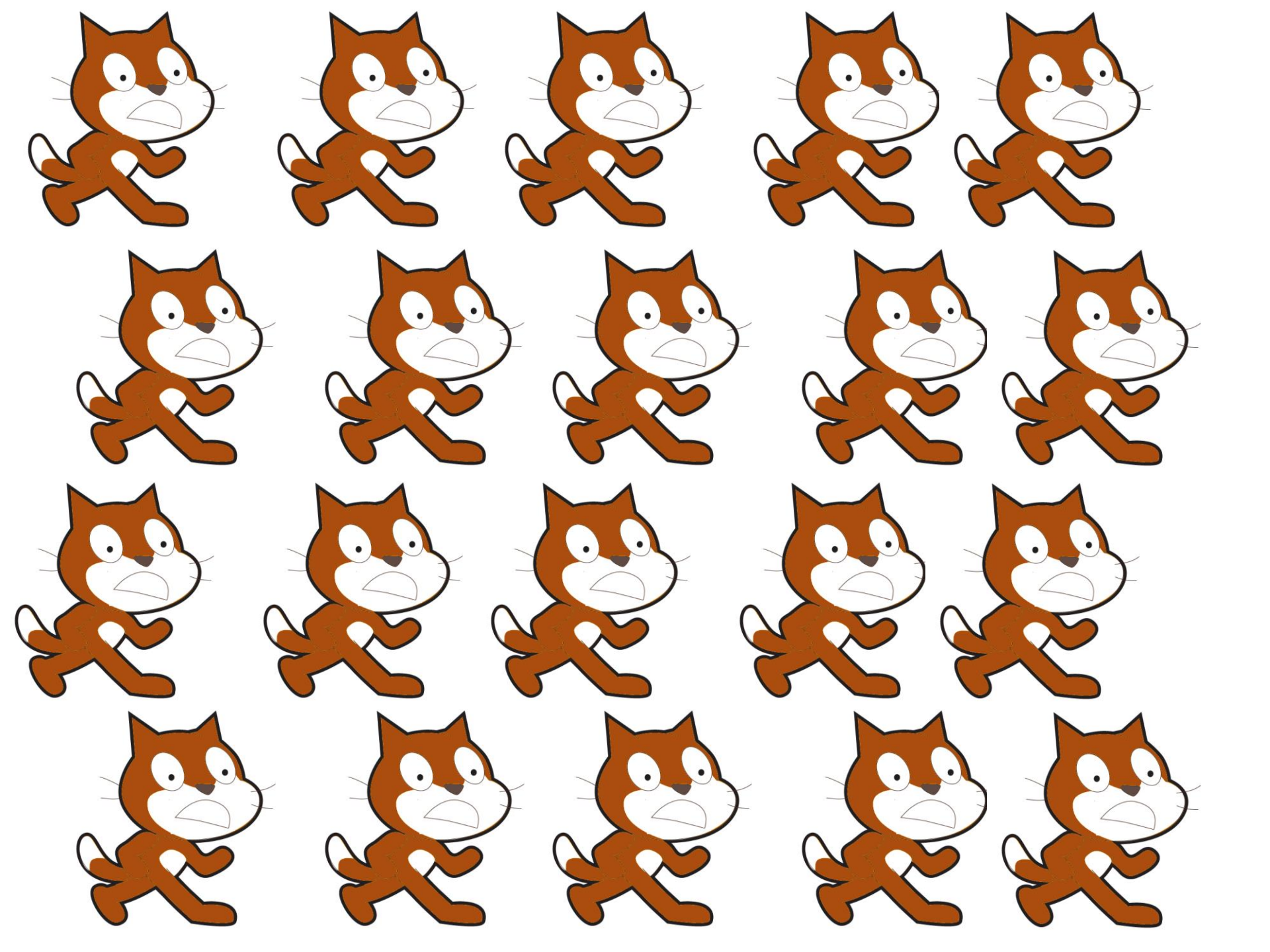
25-27 July 2013

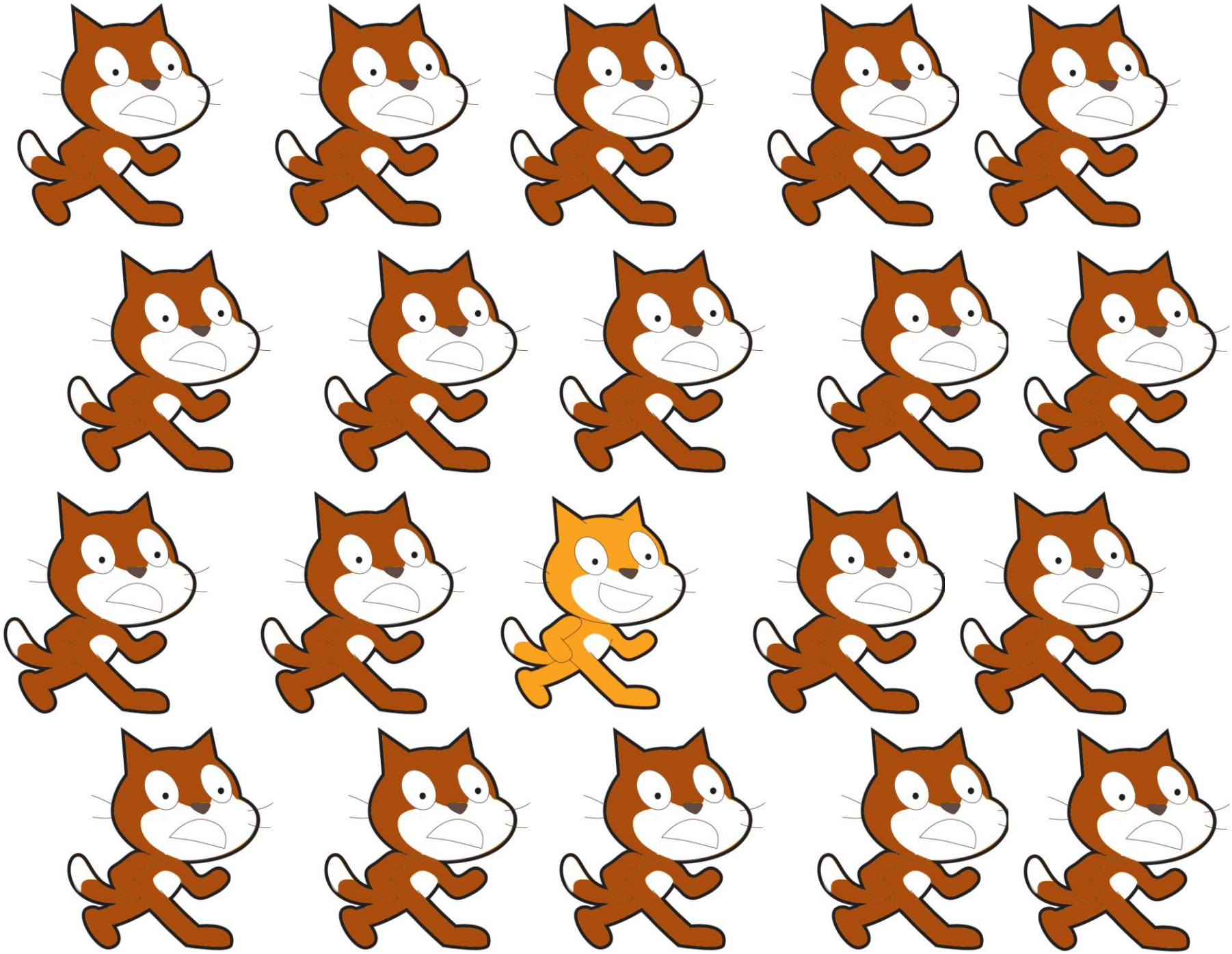
Frank Sabaté

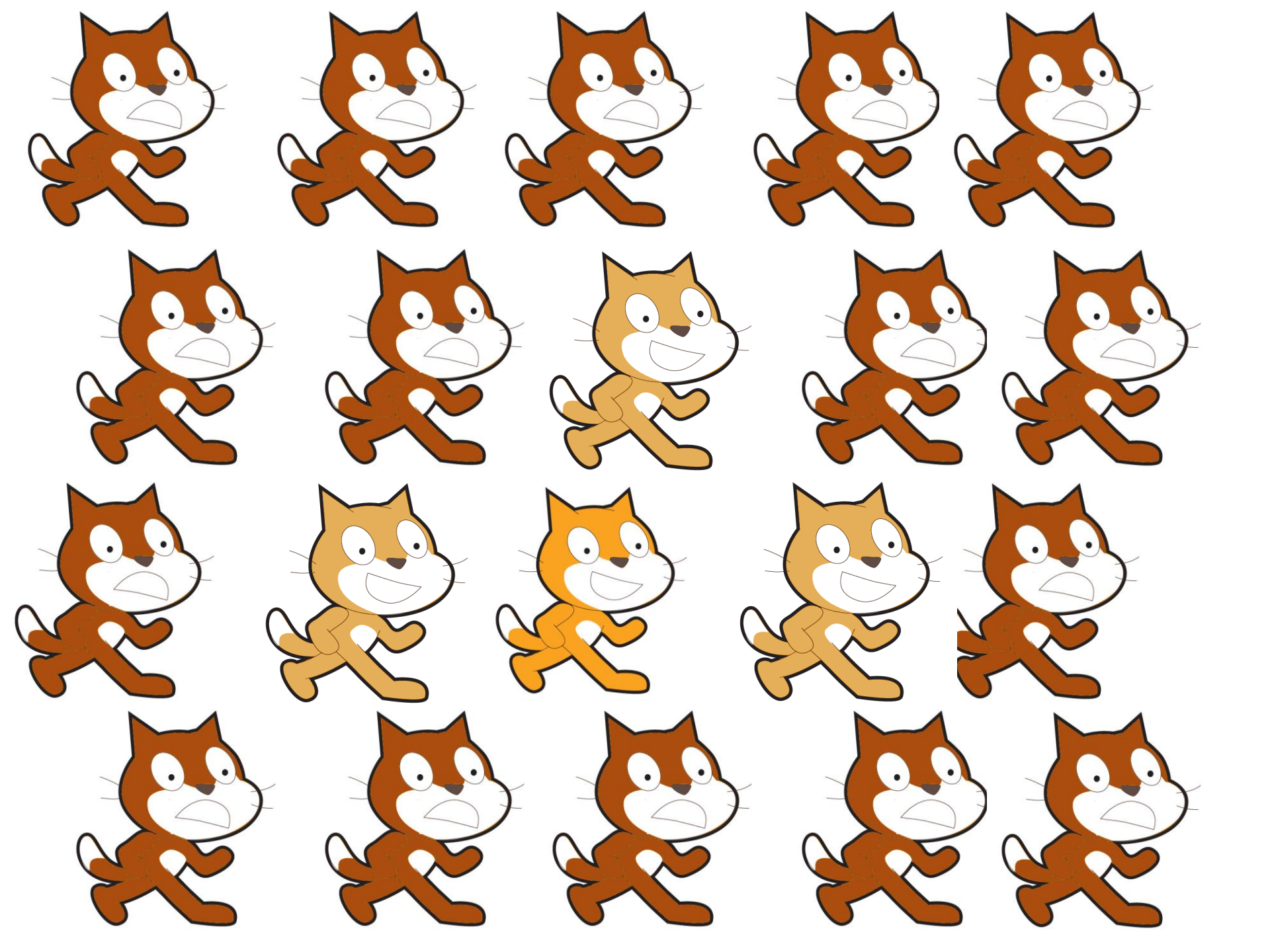
Connecting **new** teachers to Scratch: An **active** teacher training method

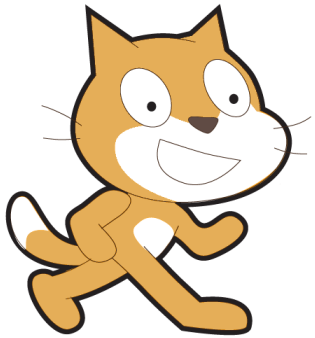


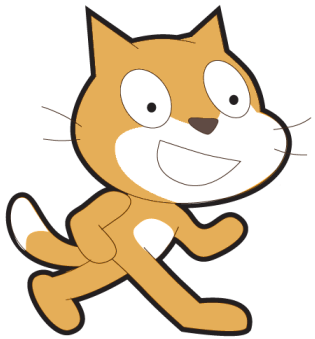
Frank Sabaté - Escola Projecte
@franksabate
franksabate@escolaprojecte.cat

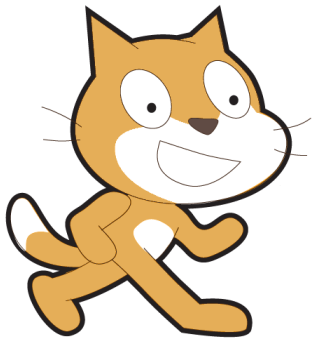


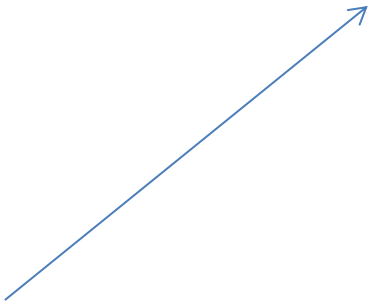


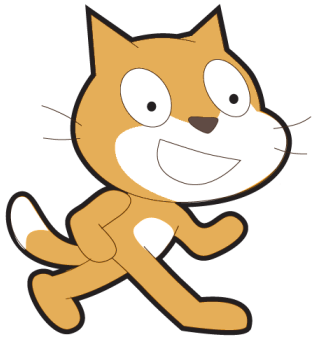


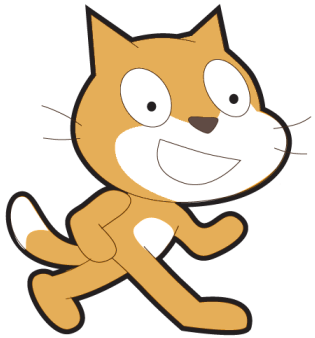


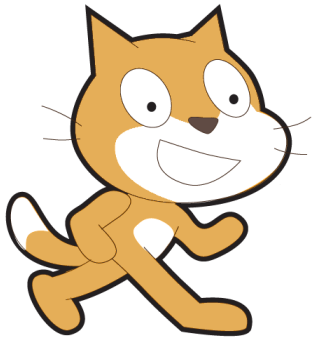












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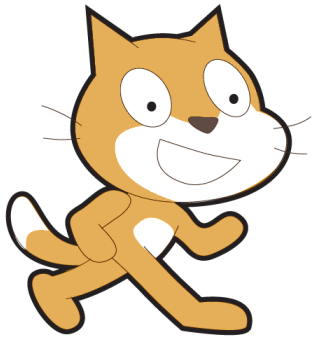

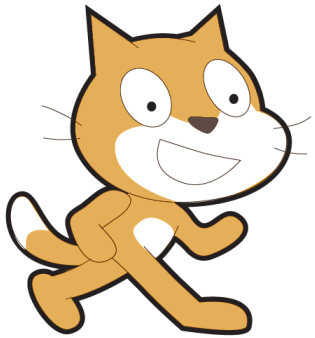

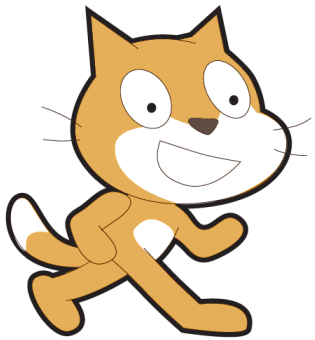

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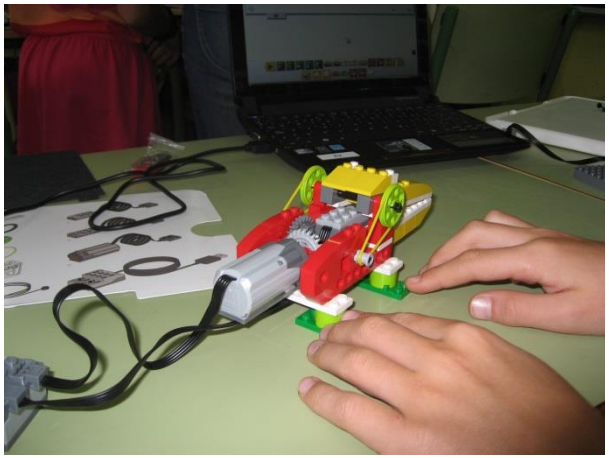
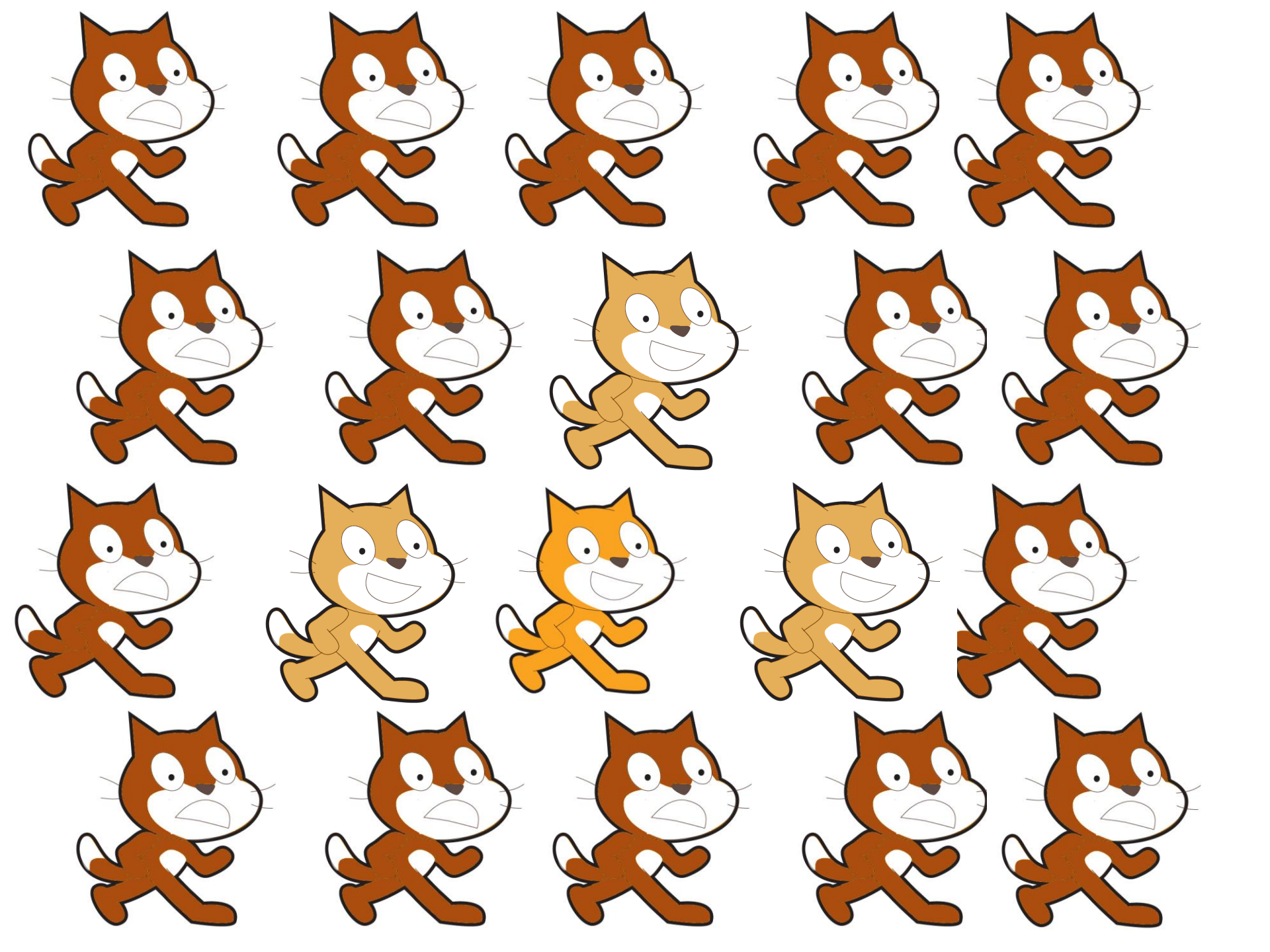
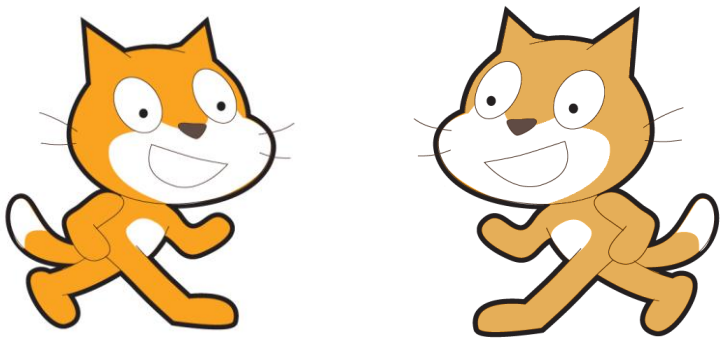
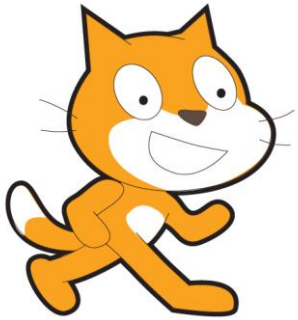
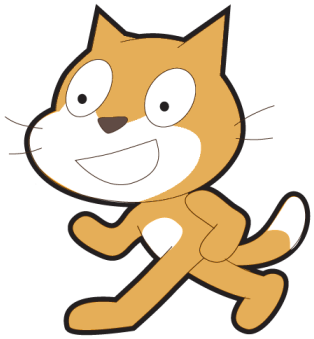




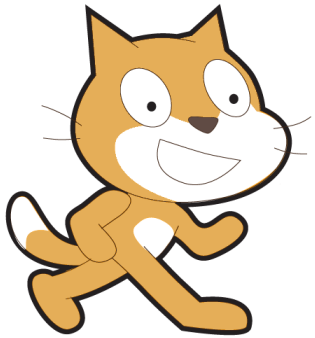


1h session / 12 students

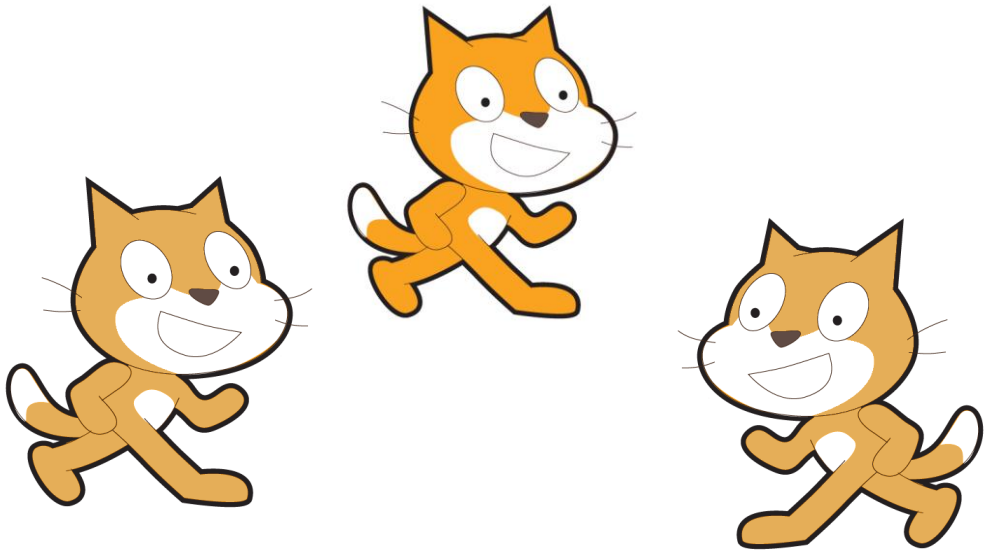




1h class / 12 students

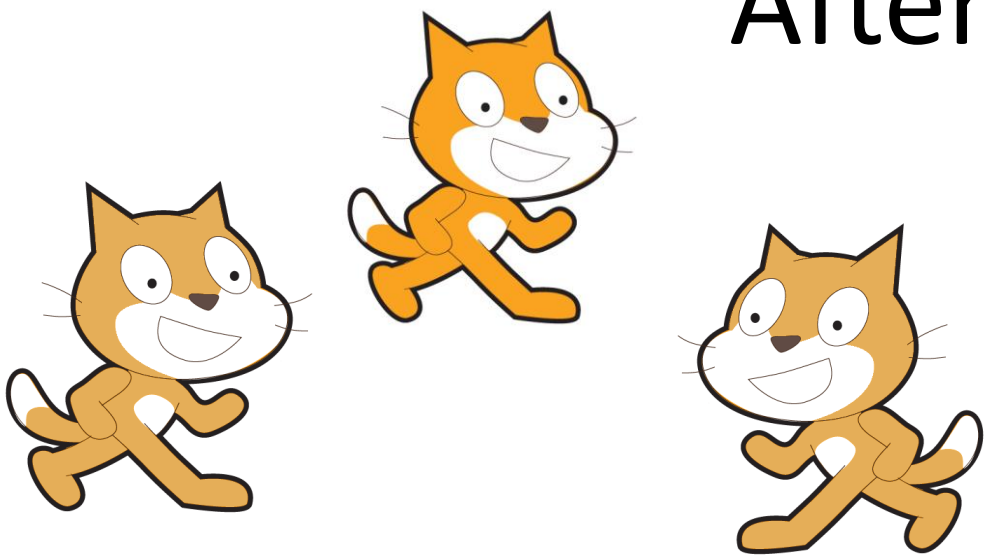


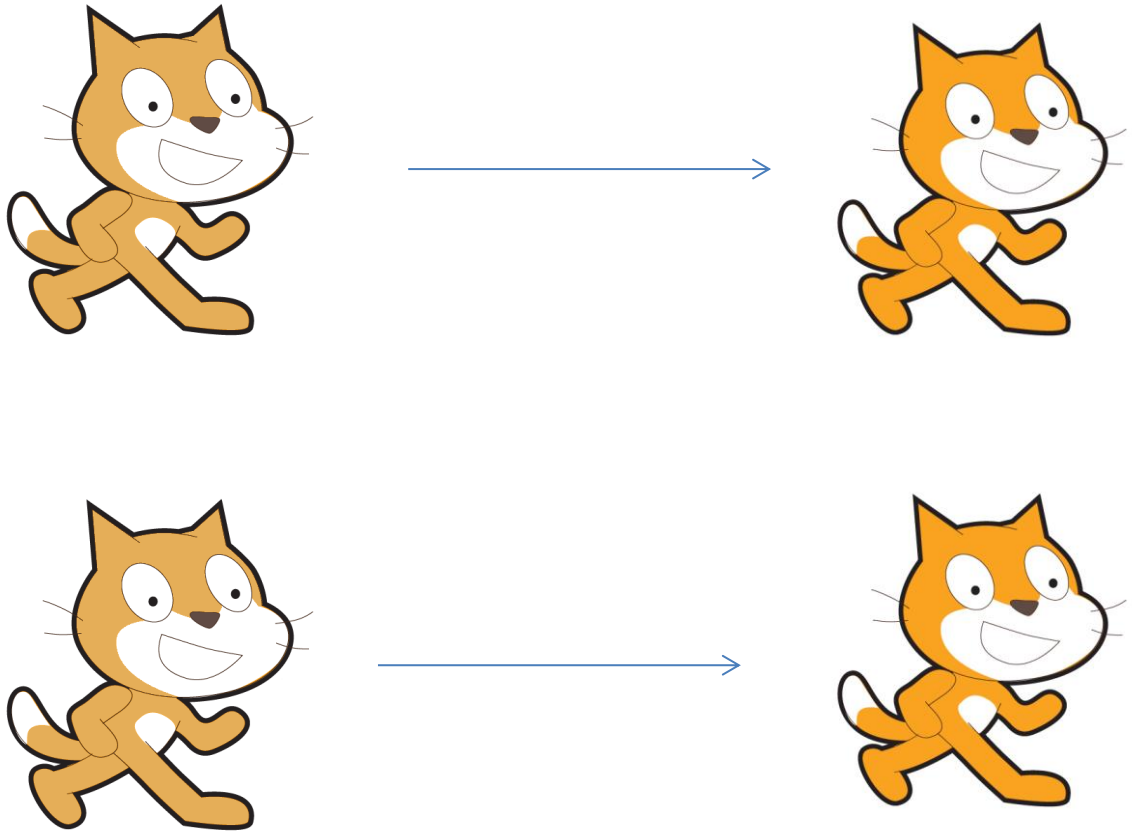
1h class / 12 students

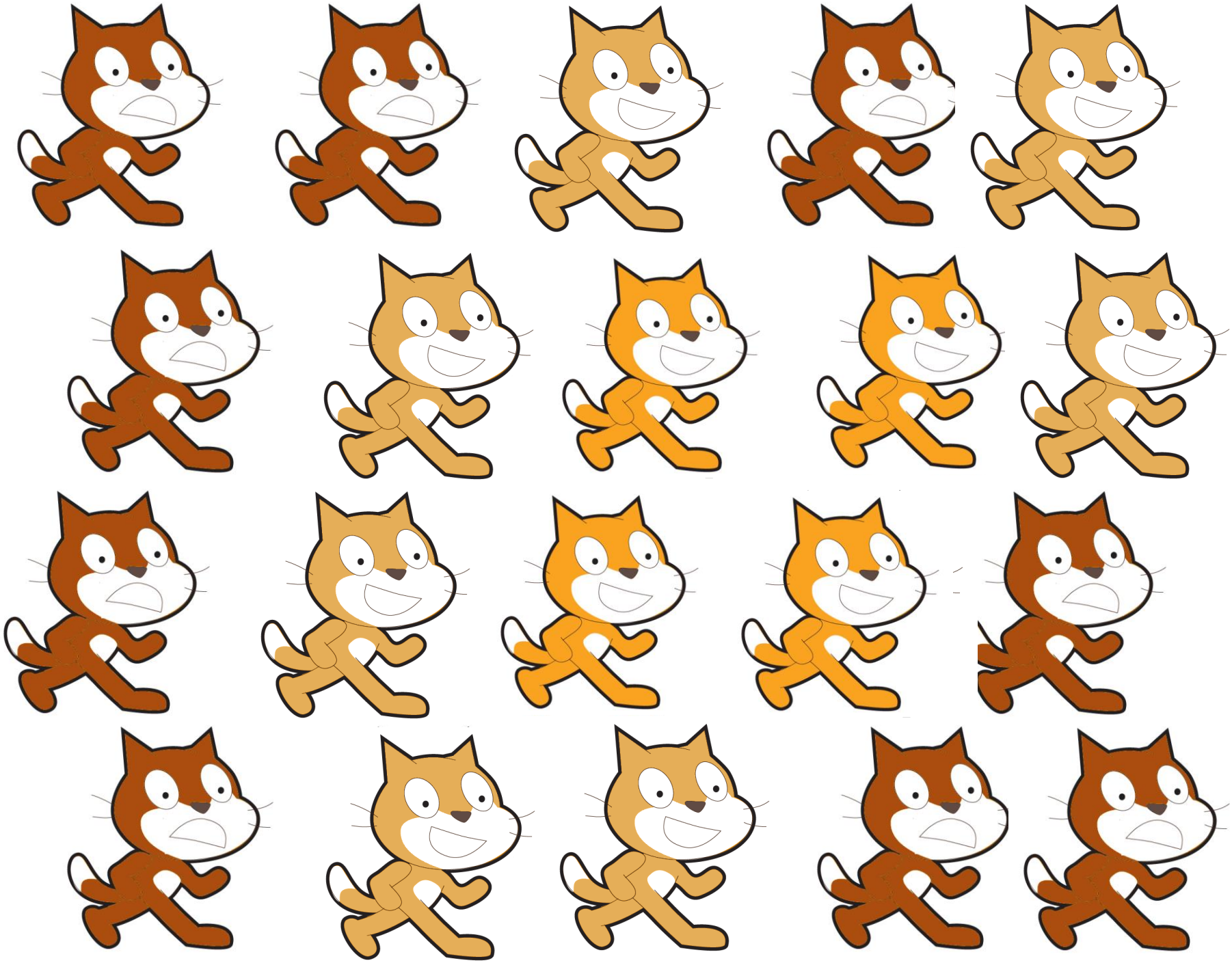


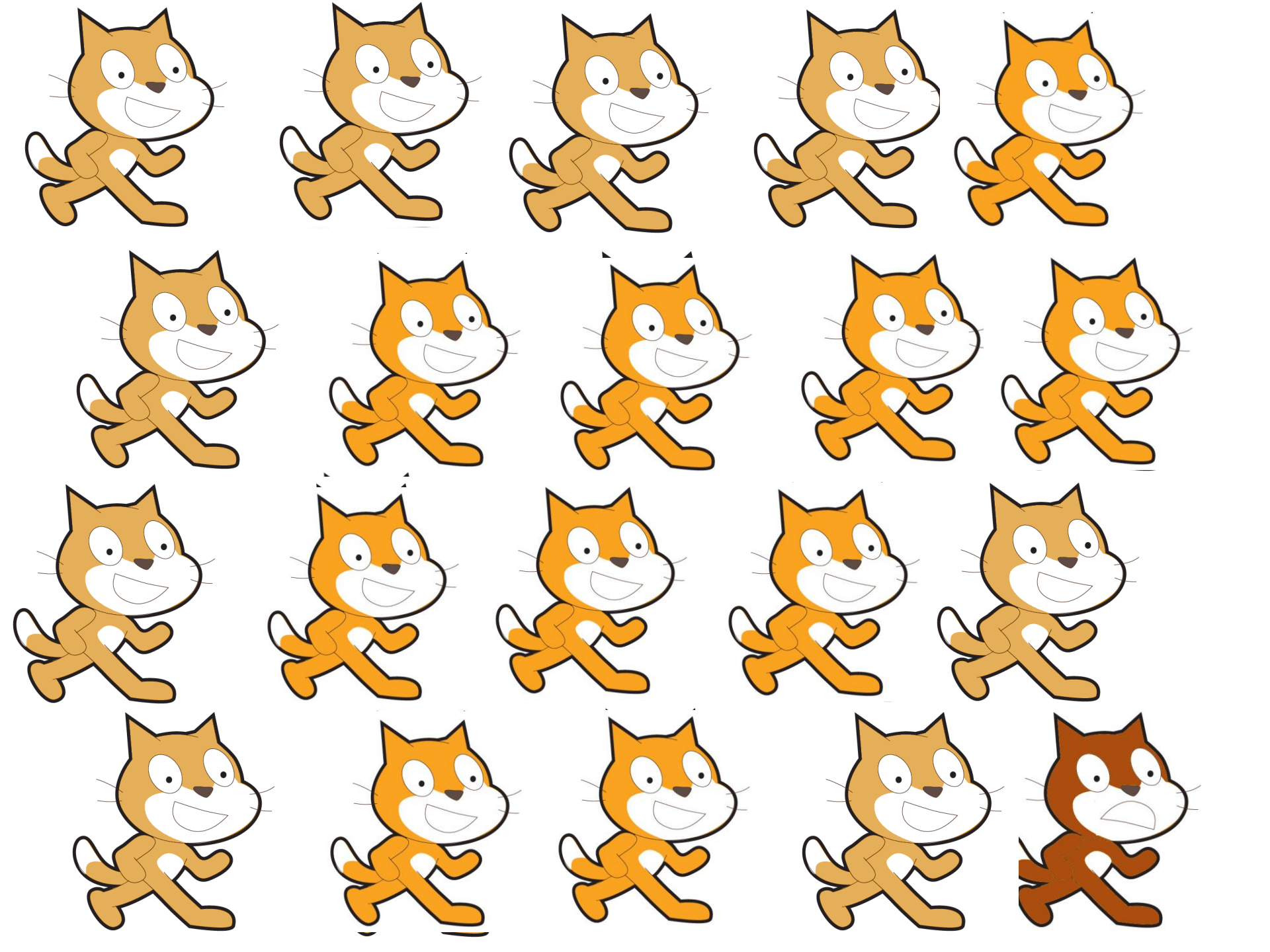
Before class meeting

After class meeting









Is Scratch a programming language?

Programming language

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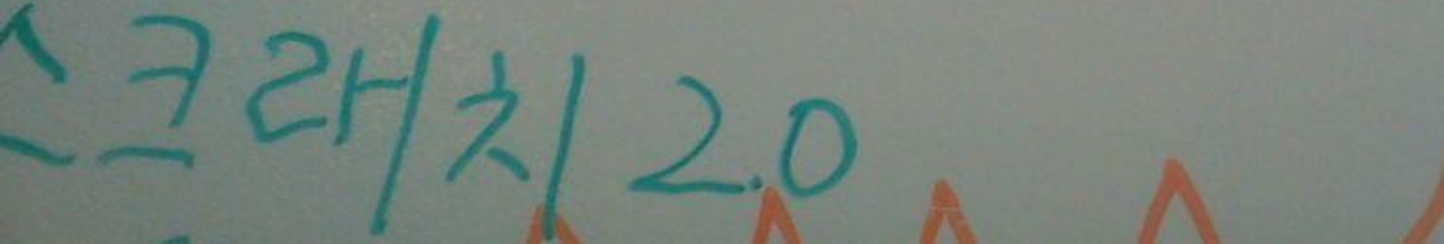
Online Community

Scratch conferences are usually in the even years. Europe would love to host conference in odd years, or how about 2013 Barcelona, 2014 Boston, 2015 Beijing.




PALAU DE LA GENERALITAT

Programming language

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Online Community

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Online Family!