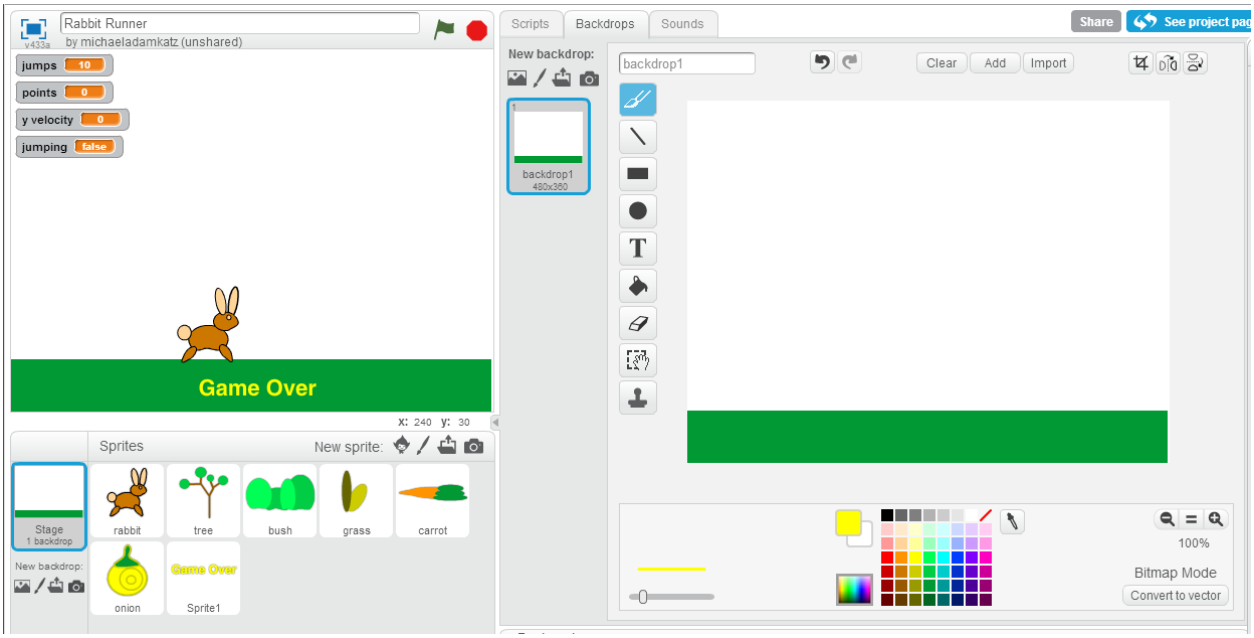
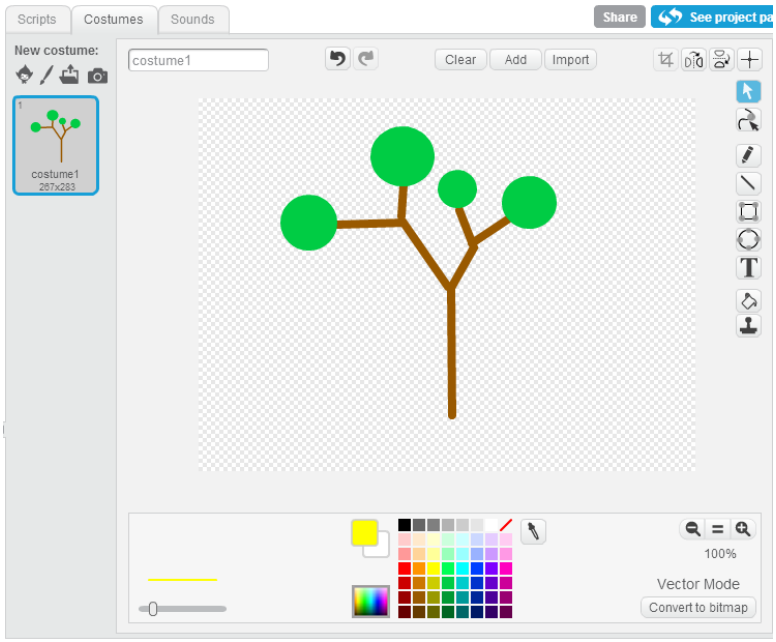
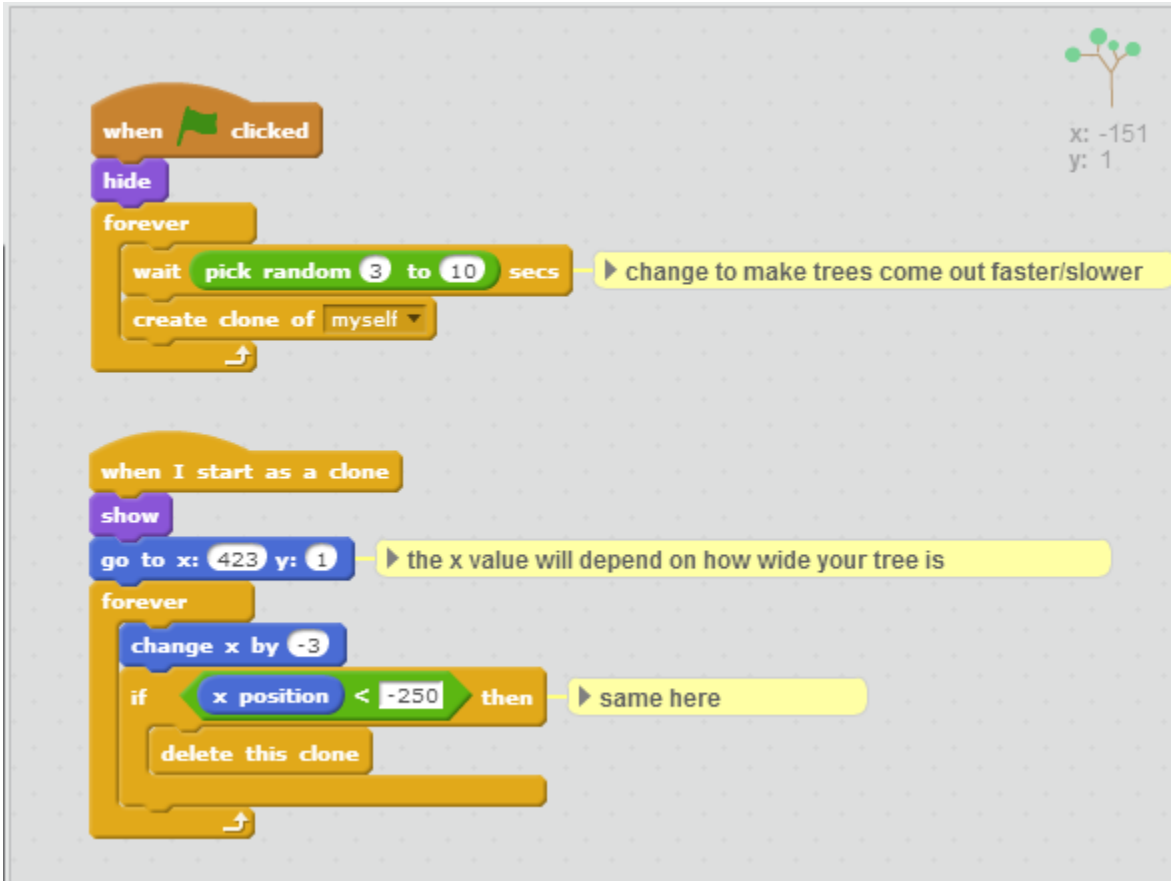
Rabbit Runner

1. Stage.



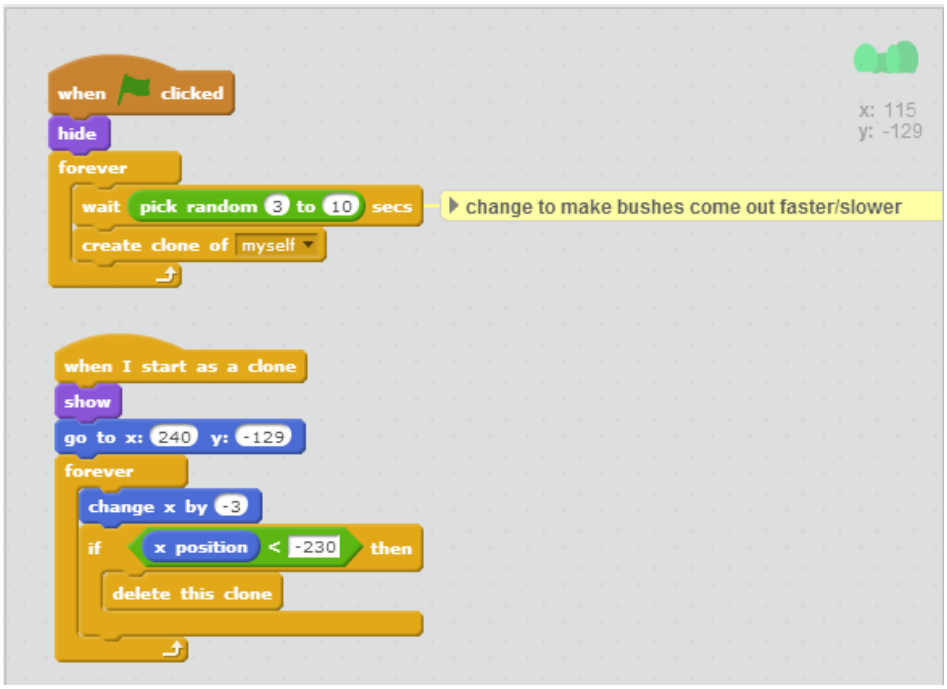
2. Tree

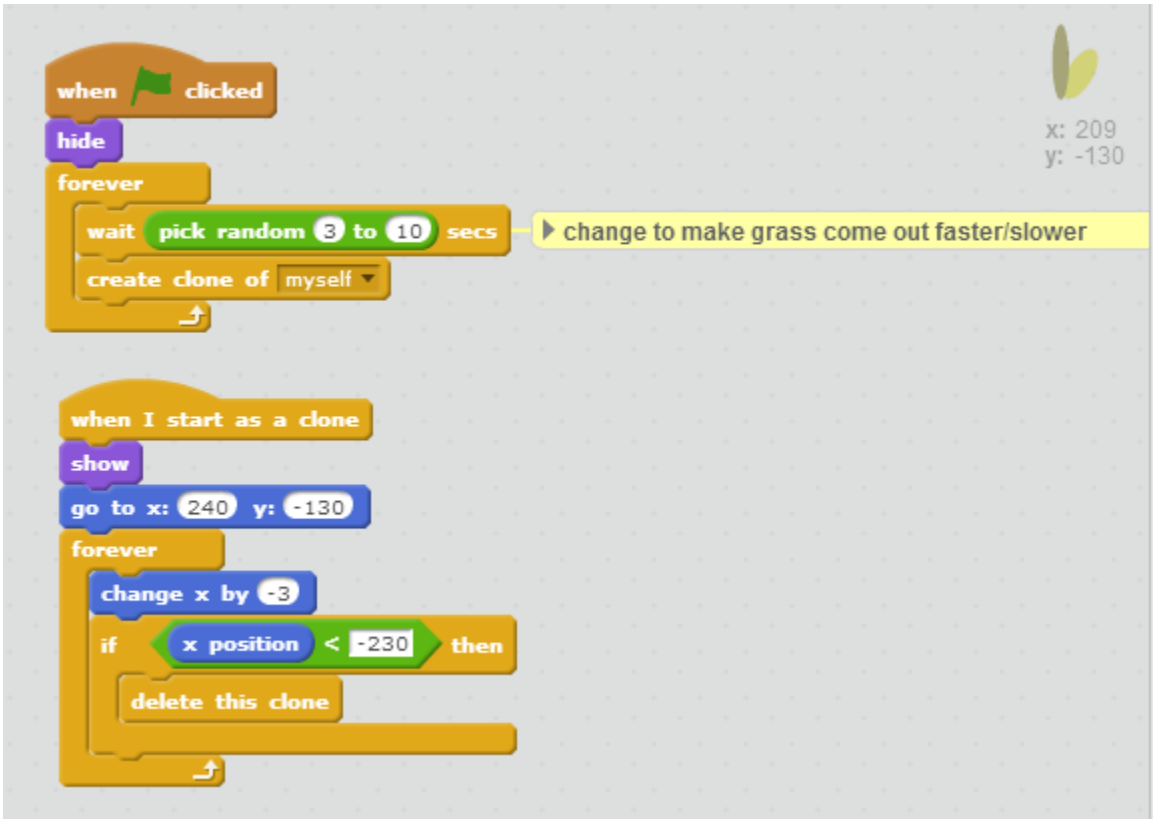




You can test your program even after you've added just the tree.

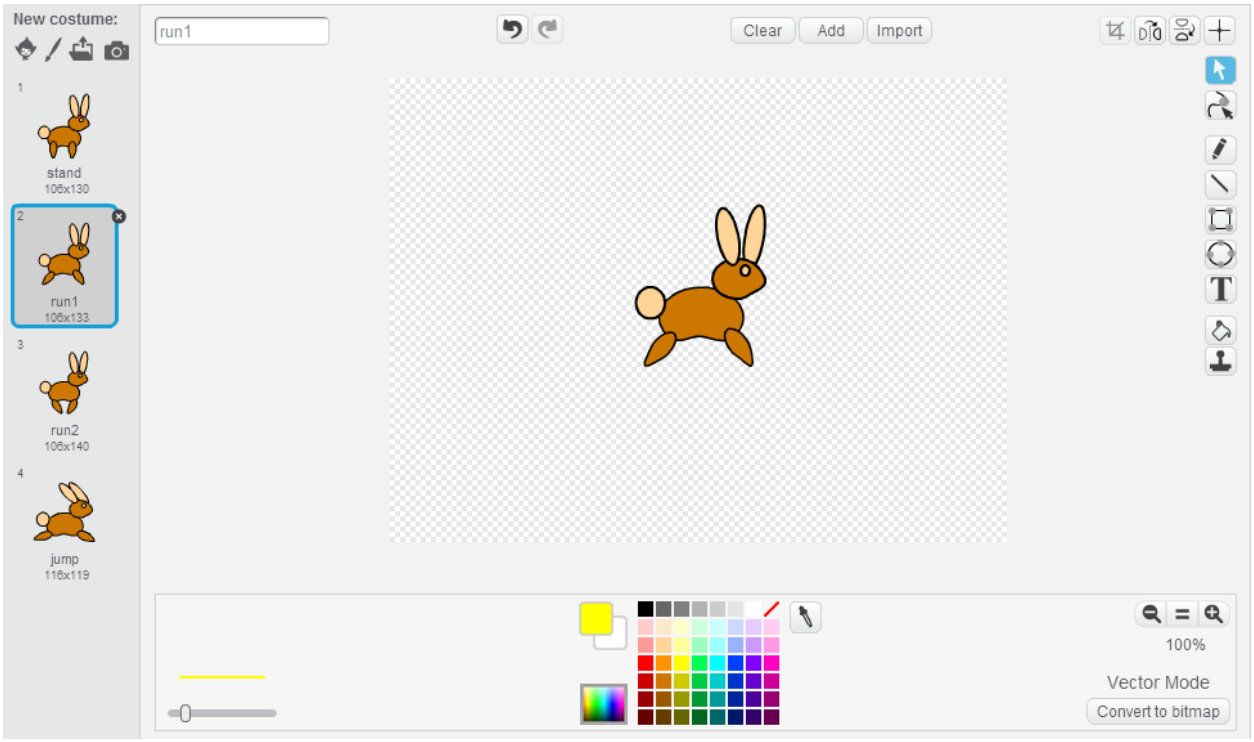
3. Bush and grass

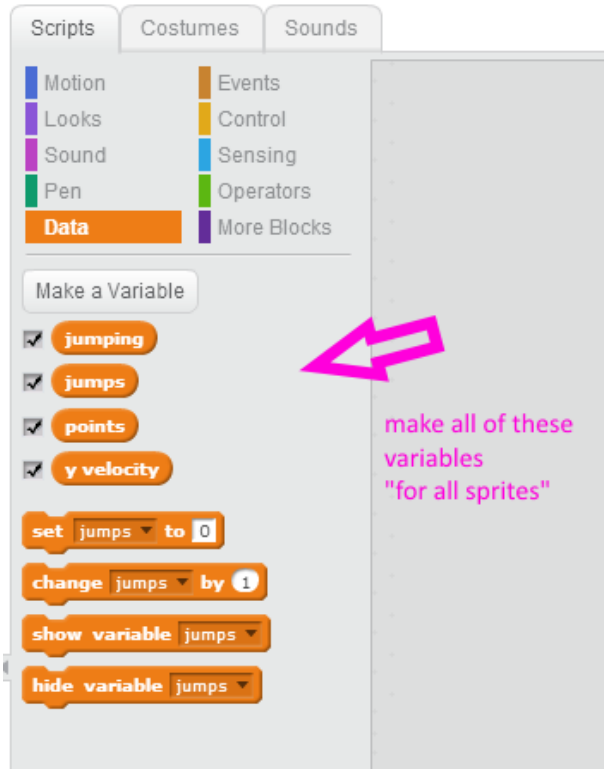




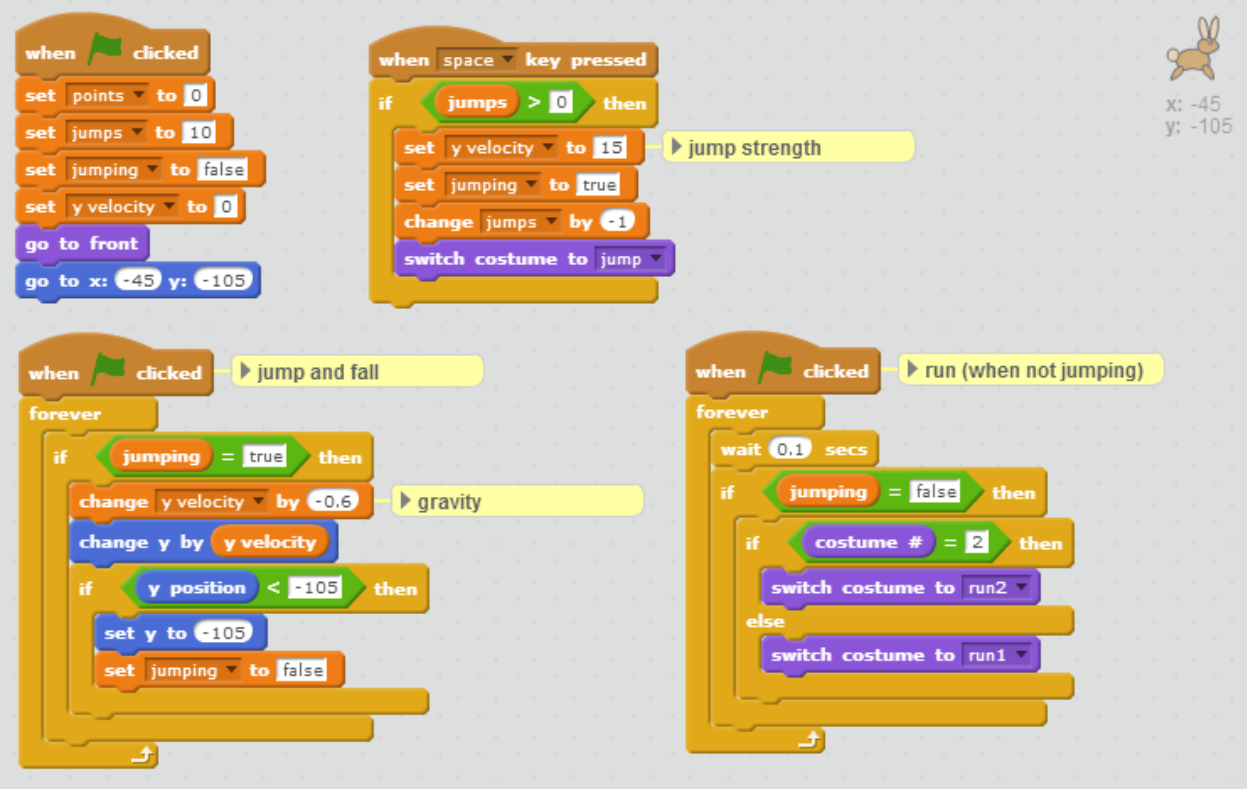
Test your program again after you've added the bush and grass.

4. Rabbit

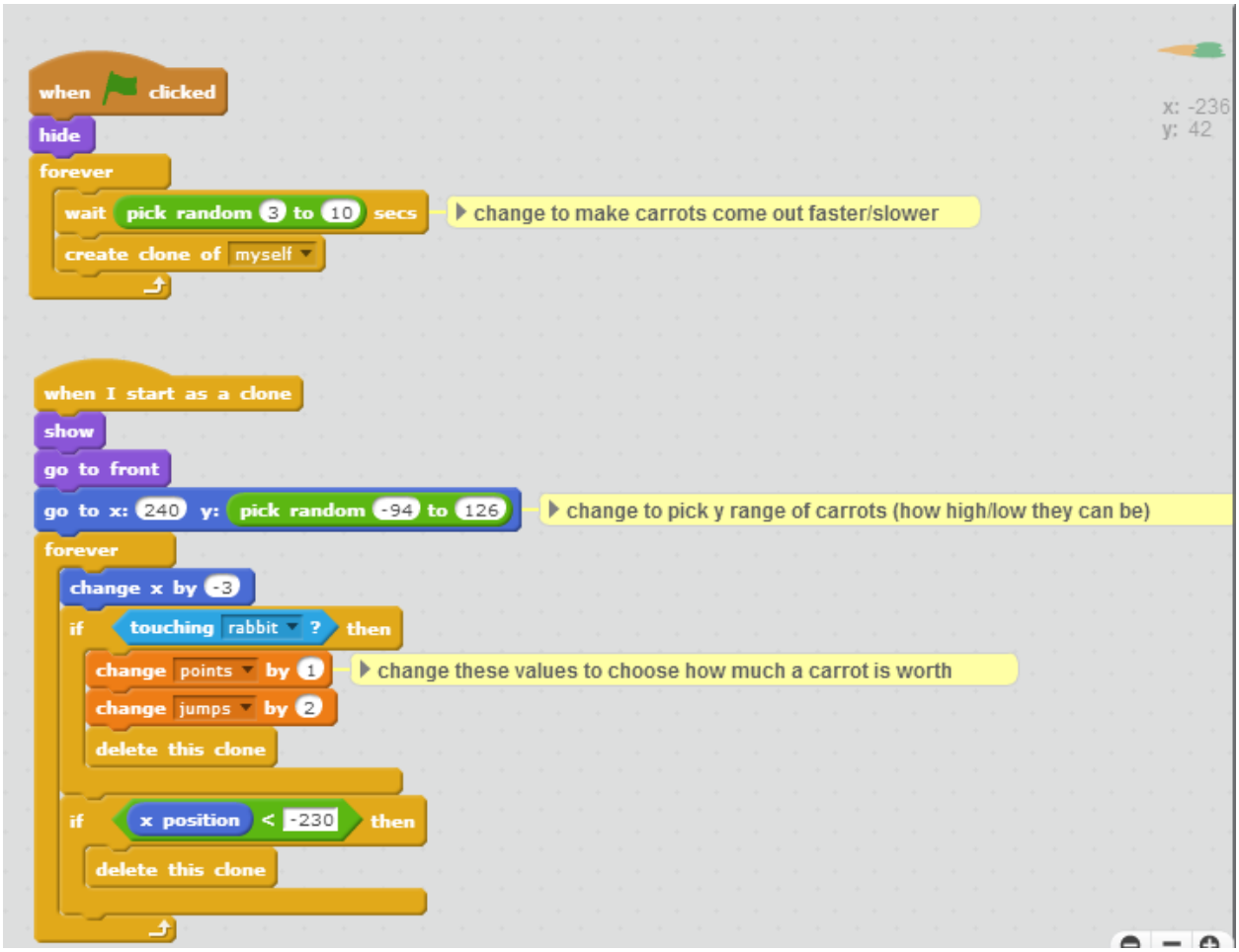

New costume:
run1
Clear
Add
Import
1
stand
106x130
2
run1
106x133
3
run2
106x140
4
jump
116x119
100%
Vector Mode
Convert to bitmap


Scripts
Costumes
Sounds
Motion
Looks
Sound
Pen
Data
Events
Control
Sensing
Operators
More Blocks
Make a Variable
jumping
jumps
points
y velocity
set jumps to 0
change jumps by 1
show variable jumps
hide variable jumps
make all of these
variables
"for all sprites"

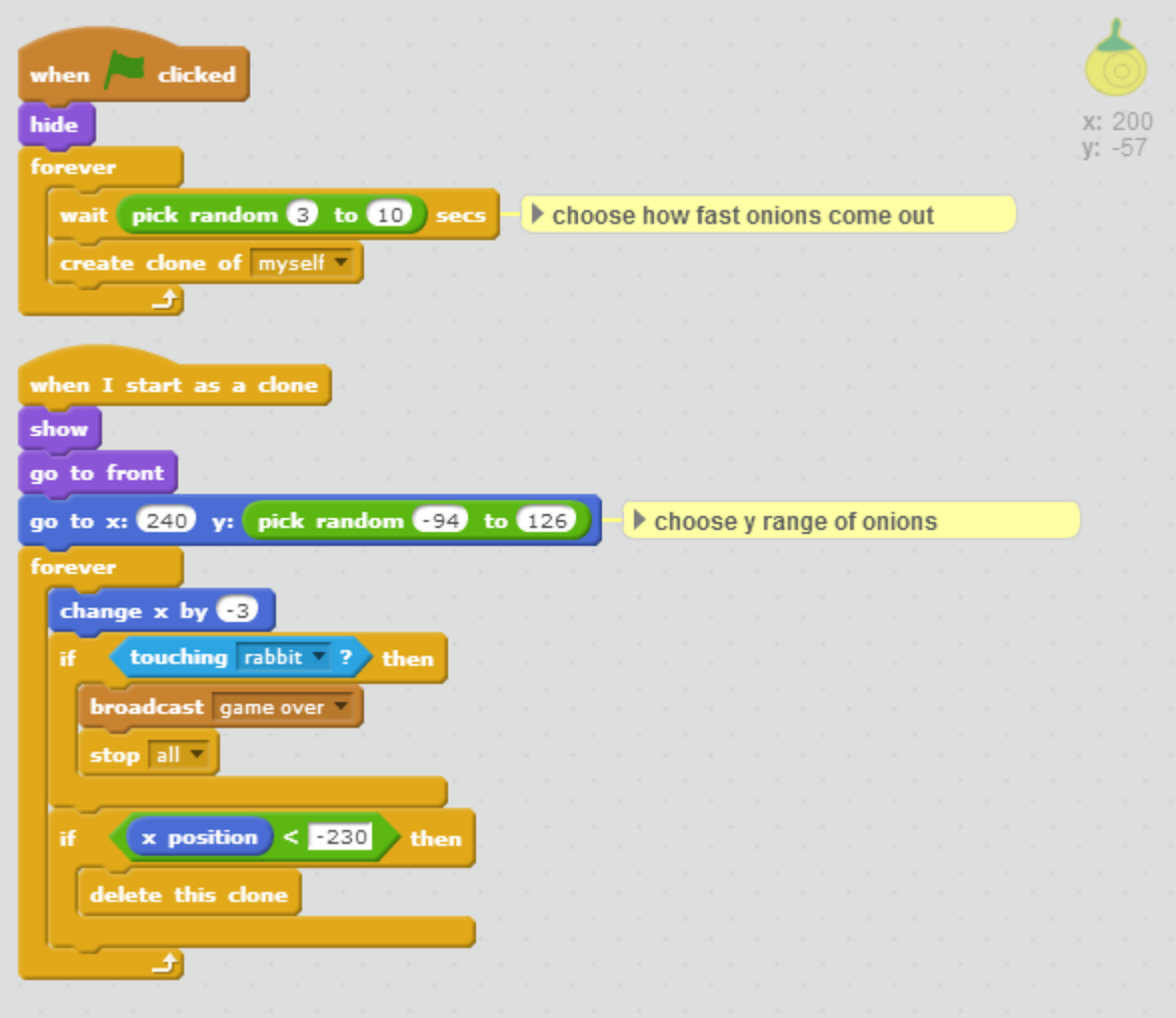
Rabbit scripts:



5. Carrot

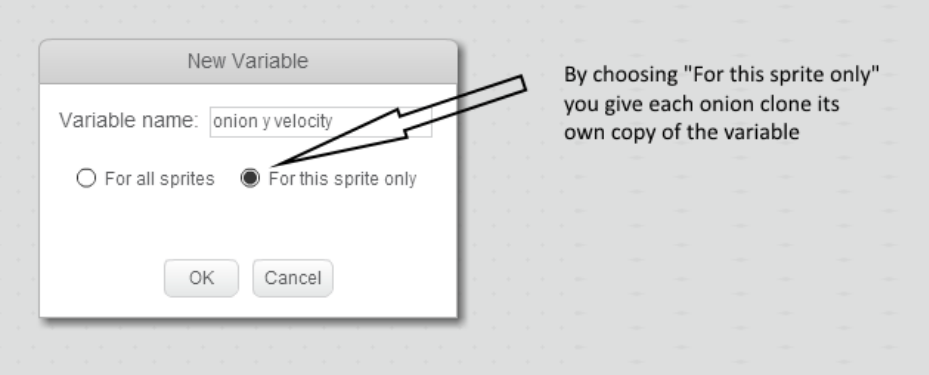

when clicked
hide
forever
wait pick random 3 to 10 secs
change to make carrots come out faster/slower
create clone of myself
x: -236
y: 42
when I start as a clone
show
go to front
go to x: 240 y: pick random -94 to 126
change to pick y range of carrots (how high/low they can be)
forever
change x by -3
if touching rabbit ? then
change points by 1
change these values to choose how much a carrot is worth
change jumps by 2
delete this clone
if x position < -230 then
delete this clone

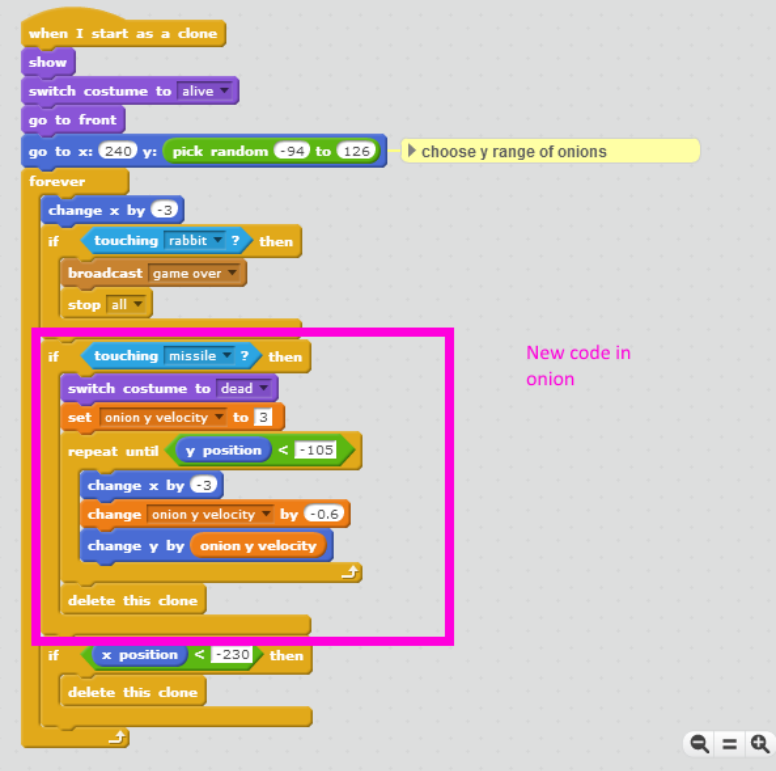
6. Onion



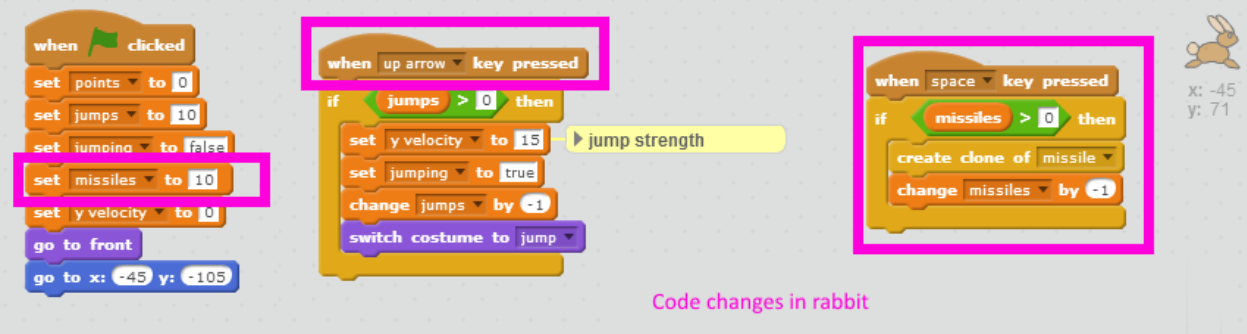
7. Game Over label

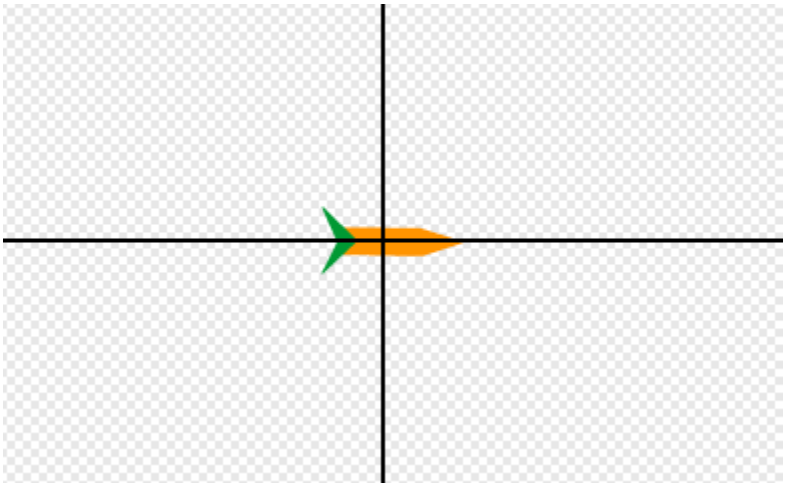
8. Missiles


New Variable
Variable name: onion y velocity
For all sprites
For this sprite only
OK
Cancel
By choosing "For this sprite only" you give each onion clone its own copy of the variable

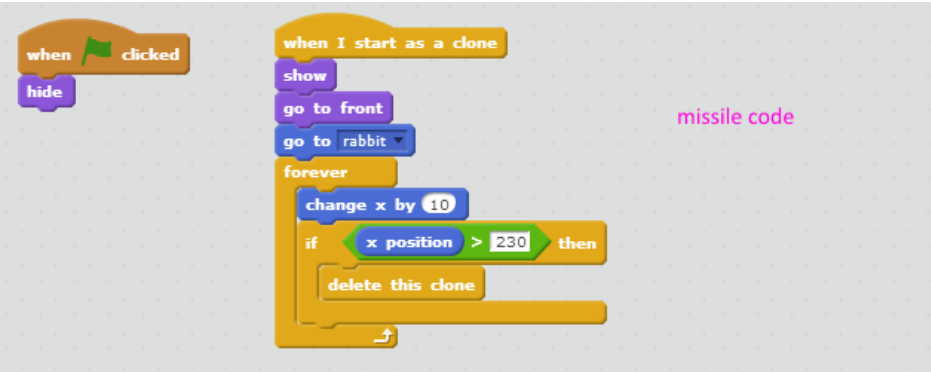

when I start as a clone
show
switch costume to alive
go to front
go to x: 240 y: pick random -94 to 126
choose y range of onions
forever
change x by -3
if touching rabbit ? then
broadcast game over
stop all
if touching missile ? then
switch costume to dead
set onion y velocity to 3
repeat until y position < -105
change x by -3
change onion y velocity by -0.6
change y by onion y velocity
delete this clone
if x position < -230 then
delete this clone
New code in onion


Make a Variable
jumping
jumps
missiles
points
y velocity
new variable "for all sprites"
set missiles to 0
change missiles by 1
show variable missiles
hide variable missiles





missile costume



9. Challenges

    a) Now that you have a way to kill onions, make it so more onions come out.
    b) Where do you have to insert a line of code so that you get more missiles every time you get a carrot?
    c) Where do you have to insert a line of code so that you get more points every time you kill an onion?
    d) Can you make the dead onion spin as it falls?
    e) Right now, when you get a carrot, it's a little boring because the carrot just disappears. Can you make it so the carrot shrinks and flies quickly to your score boxes?
    f) Right now, when the rabbit dies, it's a little boring because it just freezes in place. Can you make a "dead rabbit" costume?
    g) Instead of the space bar shooting a missile, change it so the right arrow shoots a missile forward. Then make it so the left arrow shoots an a missile backward!

10. Challenges for experts

    h) Can you make the game get faster and faster as time goes on?
    i) Can you make the game more interesting by making the carrots and onions move at different speeds (some faster and some slower)?