

CoderDojo Athenry

"Above all, be cool"



Every week:

- ✓ Sign in at the door

If you are new:

- ✓ Fill in Registration Form
- ✓ Ask a Mentor how to get started

Make sure you are on the Athenry Parents/Kids Google Group: email coderdojoathenry@gmail.com



Weekly Reminders



- Fire exit doors/main doorways must be kept clear **AT ALL TIMES**

- In the case of an emergency , please proceed in a calm and orderly manner to the nearest **Exit** and go to your **Assembly Point**



Do **NOT** take anything with you

If you have a child in another room, do **NOT** go to them, a Mentor will look after them



- Please leave passageways between desk and keep **CLEAR** at all times



**THINK
SAFETY
FIRST!**

- If power cable goes across passageways – must be **TAPED DOWN** ask mentor for tape



- **ONLY NINJAS** need a table - parents, please only use a chair





- If **FIRST AID** is required please alert a Mentor

**There are a number of trained first responders
on site every week**

€2



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Help us cut down on Single Use Cups



Bring your own cup (must have lid)

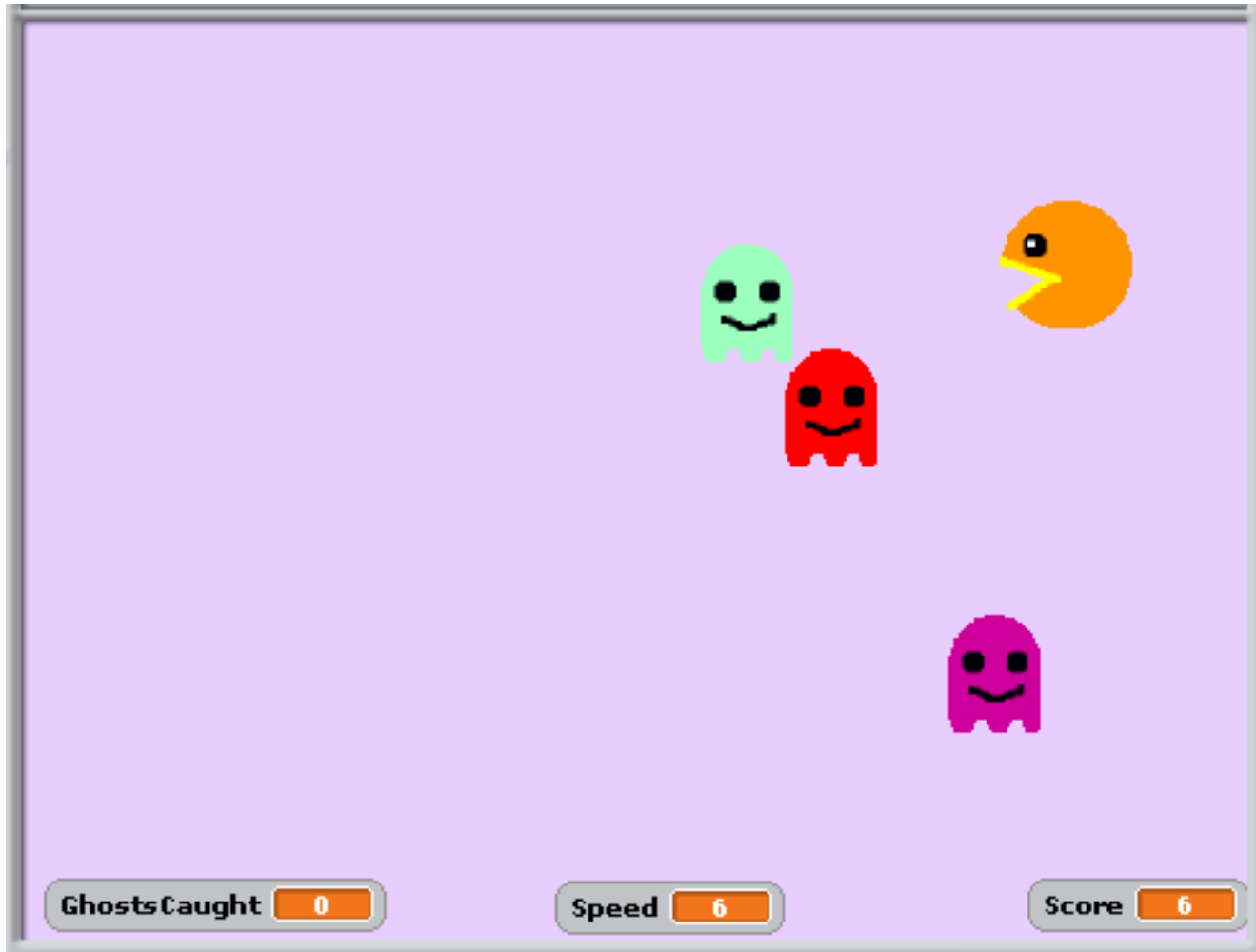
€1.50



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Today's Ninja Challenge: Create a **GhostBuster** Game Like This



Today's **Big** Ideas

Designing
your game

Loops &
Decisions

Variables



How to Get Started

Plan the Design

- Think first!
- Start simple: add more later

Create First Character

- Design it: appearance & behaviours
- Write script (Code) to control its behaviours

Test It

- Any bugs? (Not working as expected)
- Debug and Improve

Extend It

- More Characters, More Behaviours, More Testing!

Steps To Make This Game

Create your **Ghost Catcher**: appearance?
Code to control it with mouse

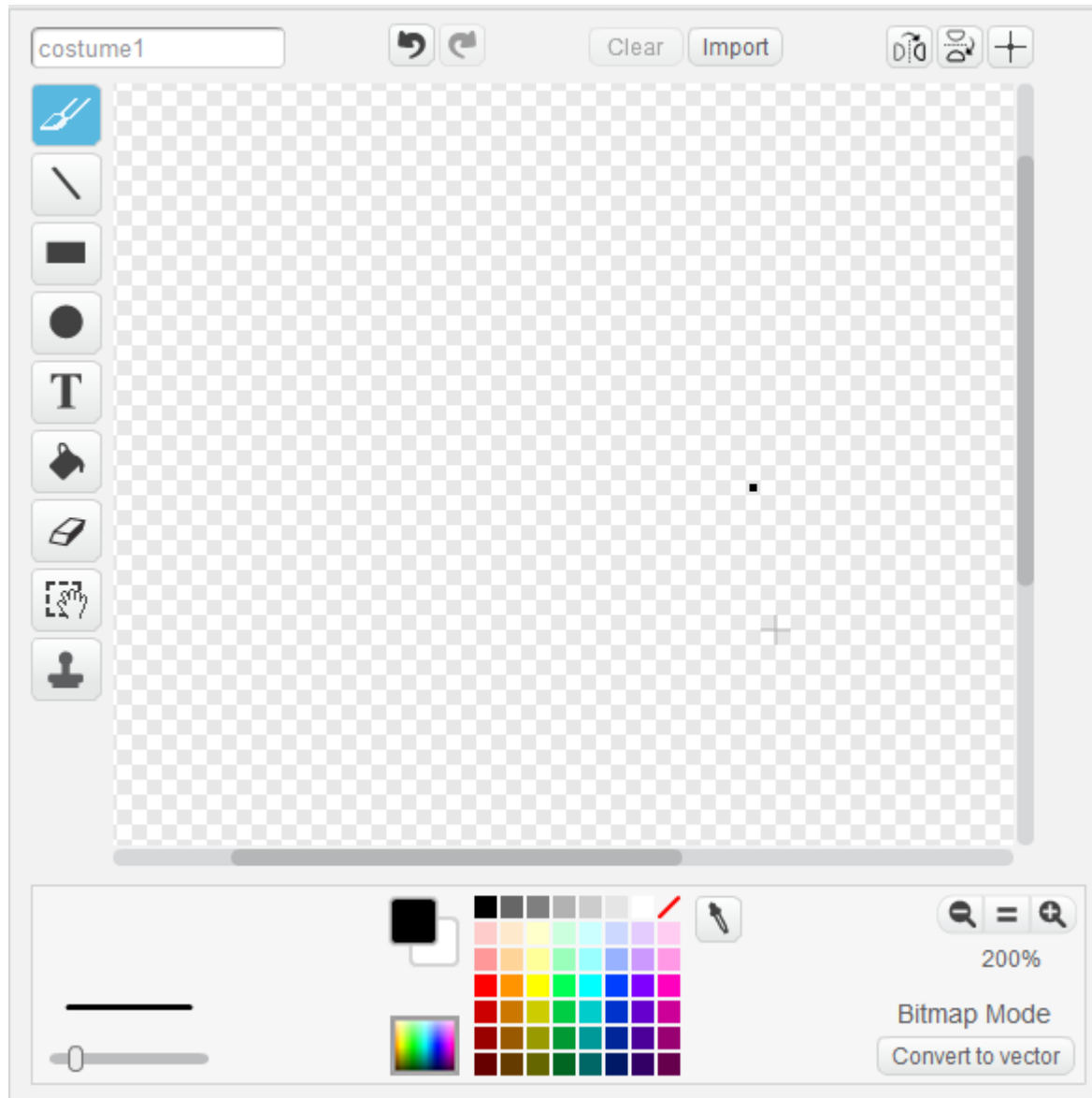
Change the **Stage**:
Plain coloured background?

Create first **Ghost**: appearance & code
Duplicate it when it is working

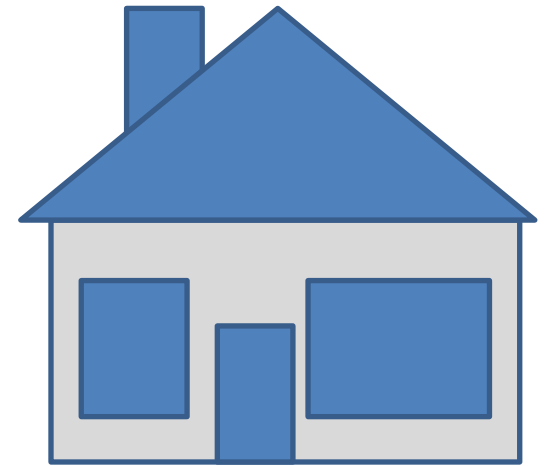
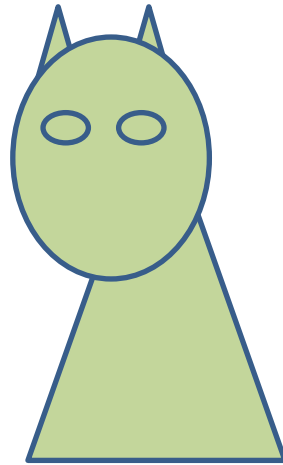
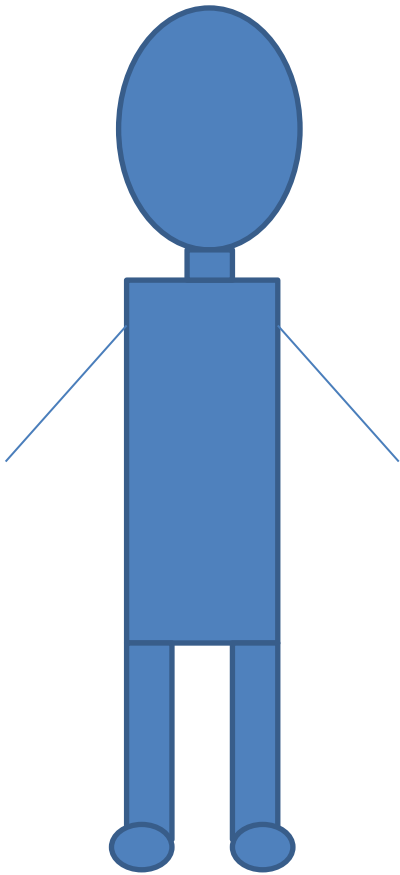
Make things happen when
a Ghost is **caught**

Add **variable** for **Score**
Optional: New **level** when all caught

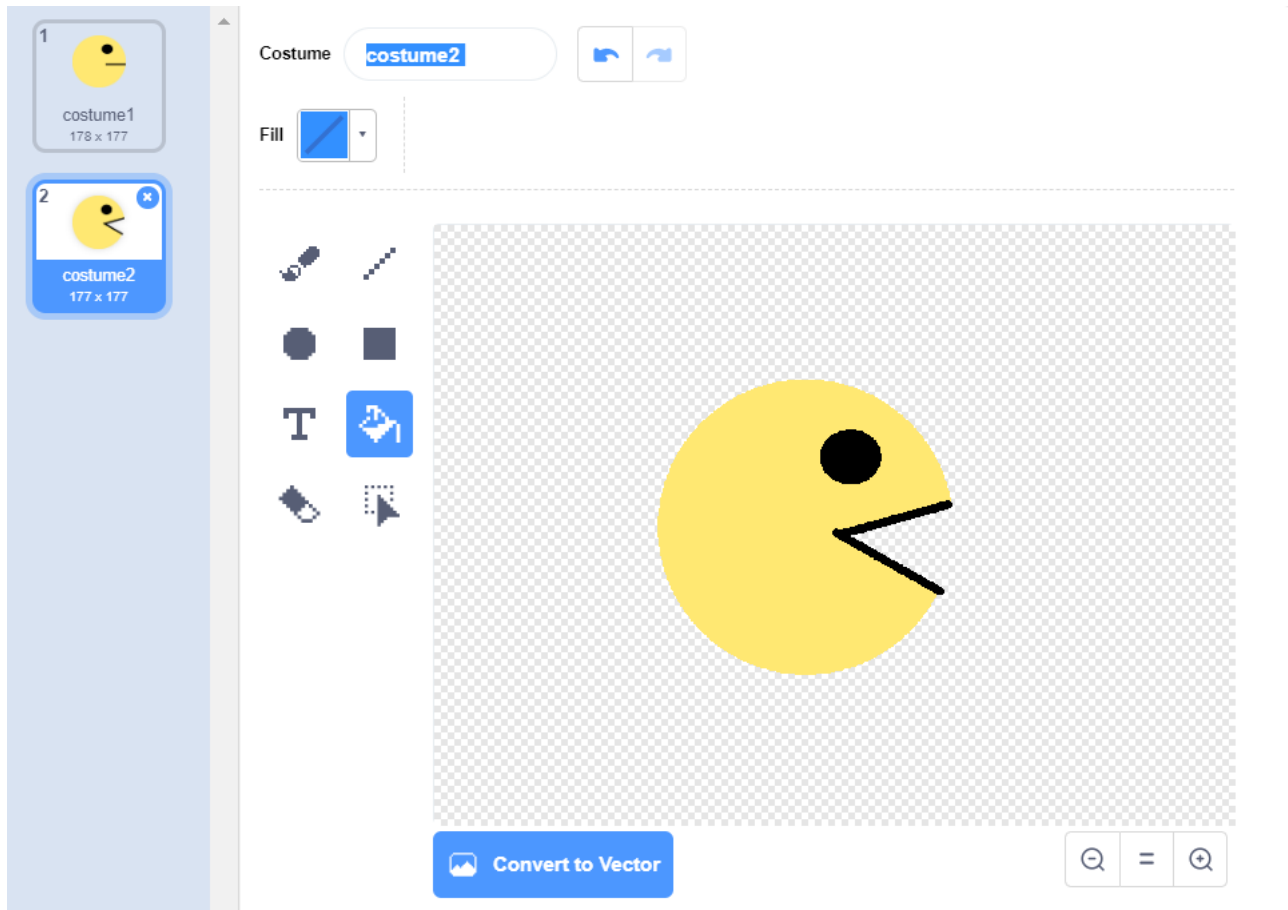
Paint Editor in Scratch



Think in Shapes



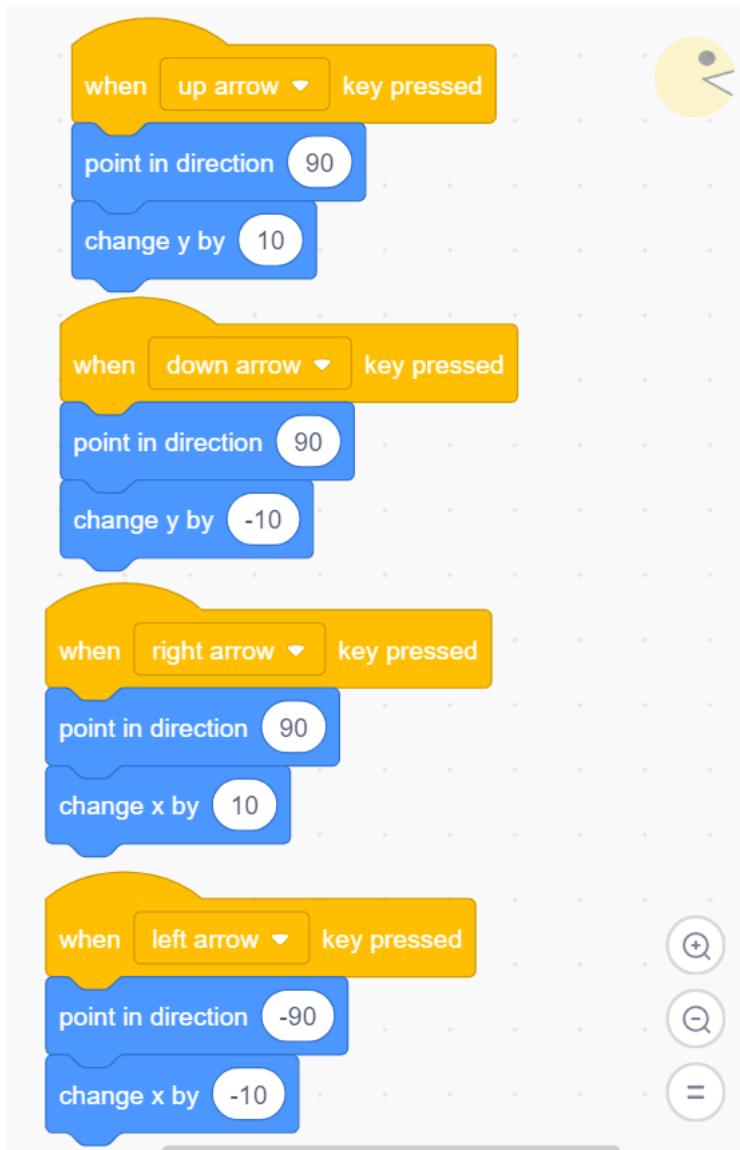
Design PacMan and a Ghost



Circles,
Rectangle &
Paintbrush



TIP: Use distinctive colour (e.g. yellow) at front/mouth:
will use this when detecting if ghost is eaten



**Make PacMan
Move using
Arrow Keys**

Make Ghost Move Around



What is significance of 1-360?

TIP: Get one ghost working fully – you can duplicate it later. Right-click on a sprite to duplicate it.

Loops and Decisions

Key programming concepts

Loop:

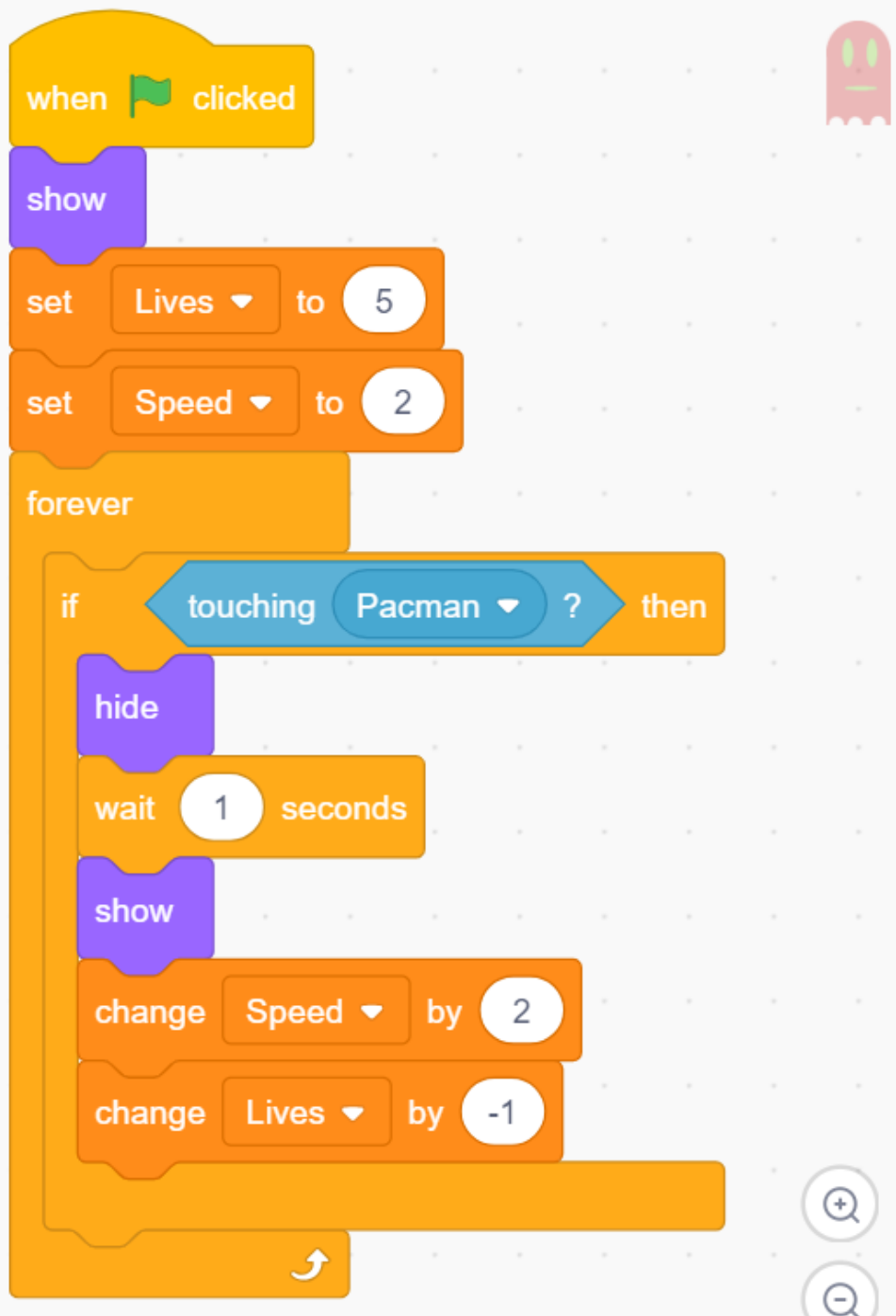
Repeat code multiple times



Decision:

Decide whether or not to do something





The image shows a Scratch script on a grid background. At the top right, there is a small pink ghost icon. The script starts with a yellow 'when green flag clicked' block. This is followed by a purple 'show' block. Then, two orange 'set' blocks: 'set Lives to 5' and 'set Speed to 2'. Below these is a large orange 'forever' loop block. Inside the loop is a blue 'if touching Pacman?' block. If true, the script executes a purple 'hide' block, an orange 'wait 1 seconds' block, a purple 'show' block, an orange 'change Speed by 2' block, and an orange 'change Lives by -1' block. At the bottom right of the script area, there are two circular icons: a plus sign and a minus sign.

```
when green flag clicked
  show
  set Lives to 5
  set Speed to 2
  forever loop
    if touching Pacman? then
      hide
      wait 1 seconds
      show
      change Speed by 2
      change Lives by -1
```

When PacMan
Gets caught by
Ghost ...

Duplicate Ghost, Make Each One Look Different

