

CoderDojo Athenry



Code and Notes by Martha Fahy, 2019

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





- 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



+



Help us cut down on Single Use Cups



Bring your own cup (must have lid)

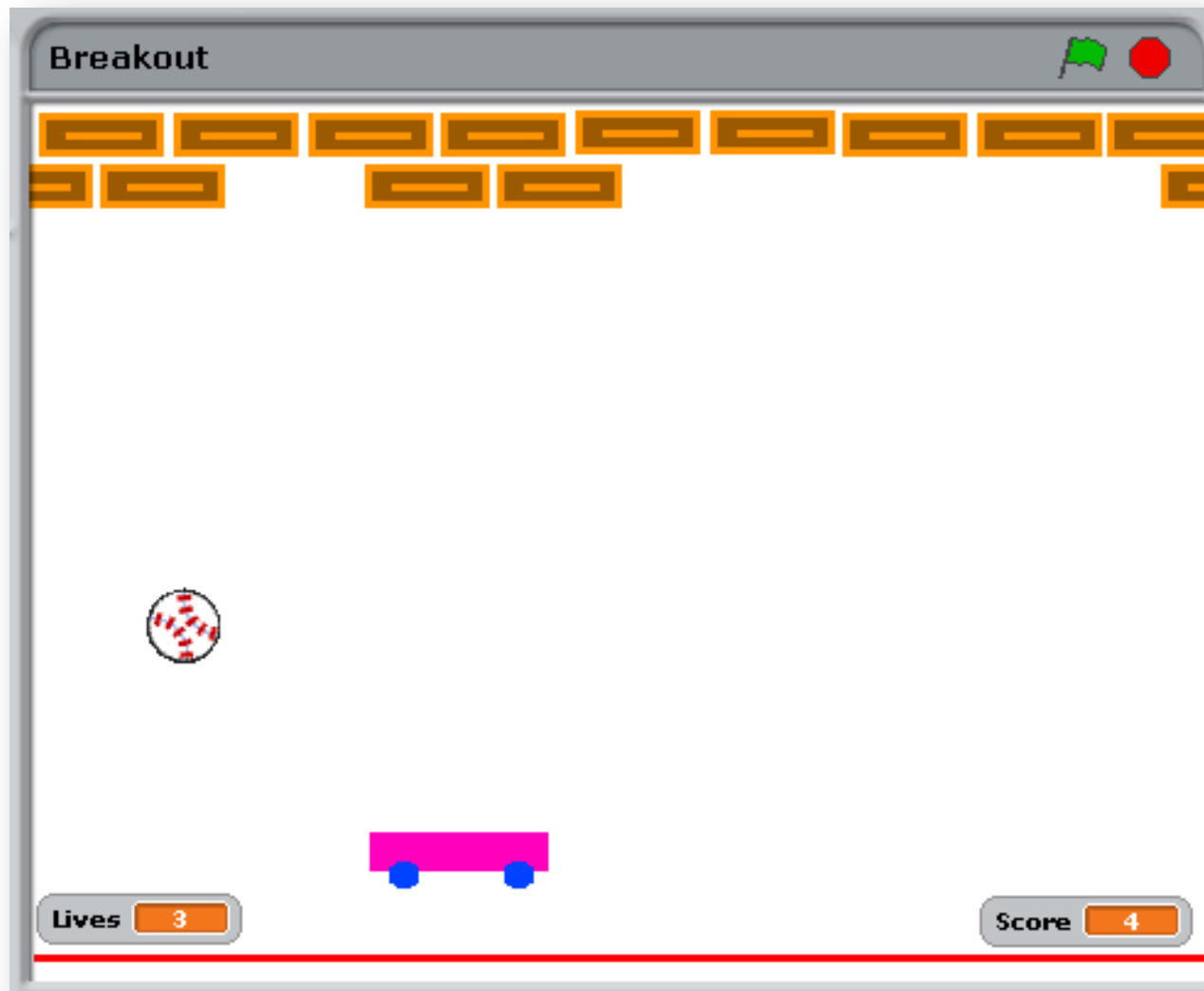
€1.50



+



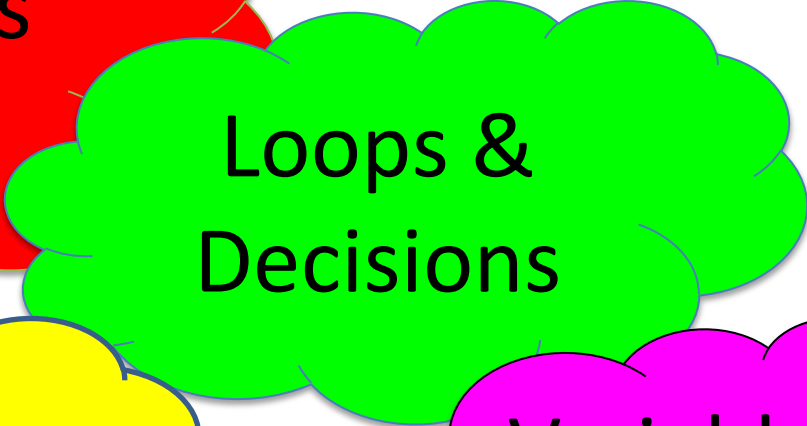
Today's Ninja Challenge: Make a Game Like **Breakout**



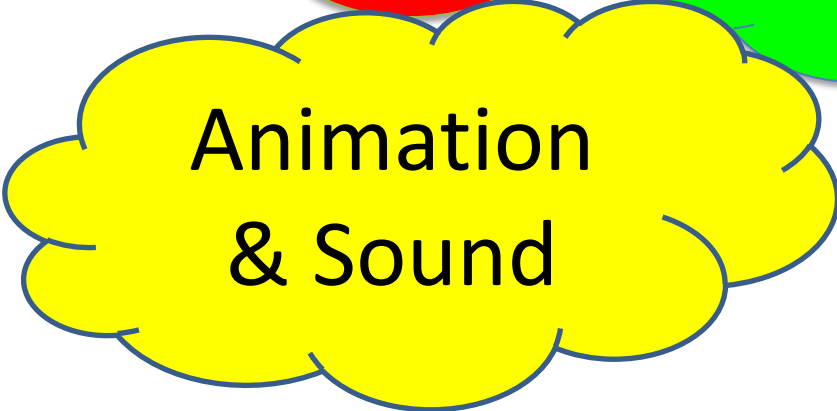
Important concepts we will use today.



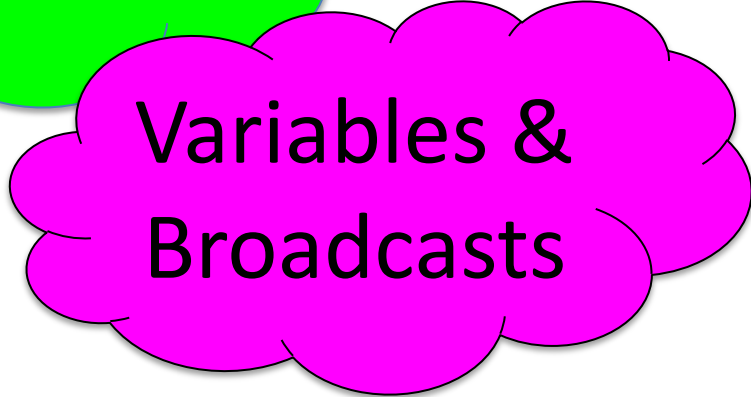
Making Sprites
Move



Loops &
Decisions

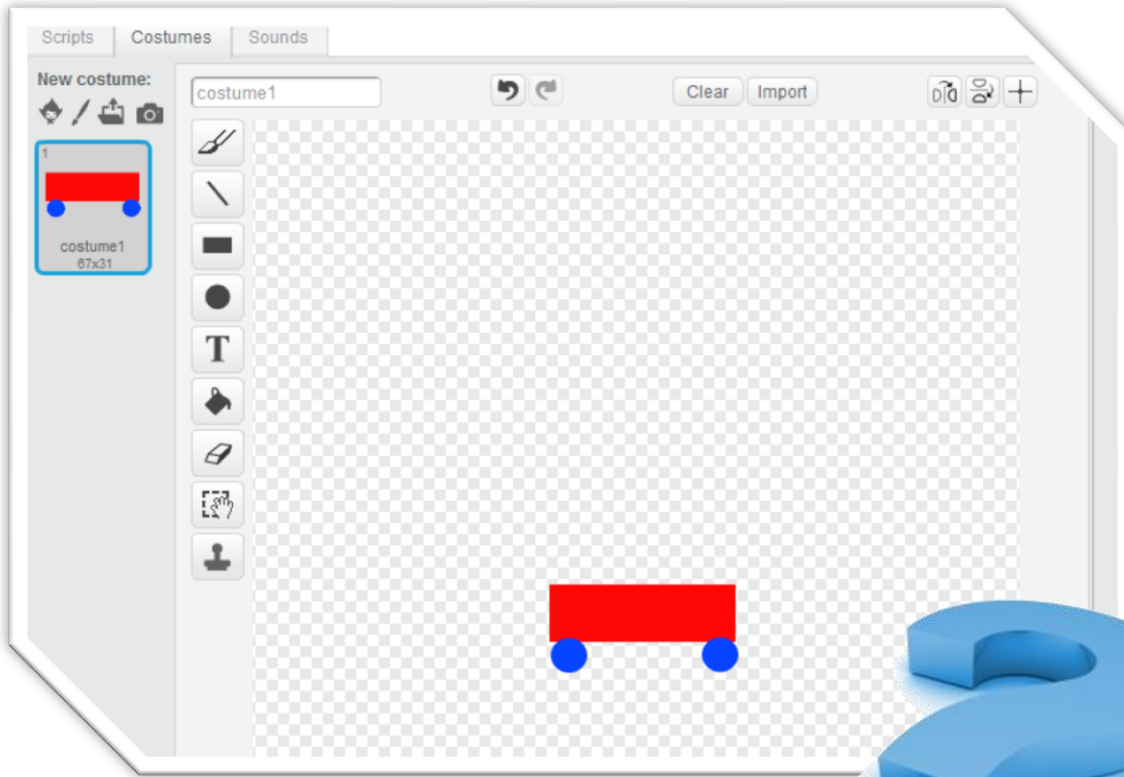


Animation
& Sound



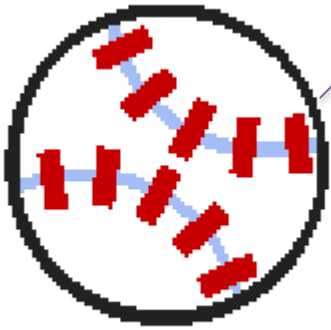
Variables &
Broadcasts

Design the **Bat Sprite** & Code So You Control it

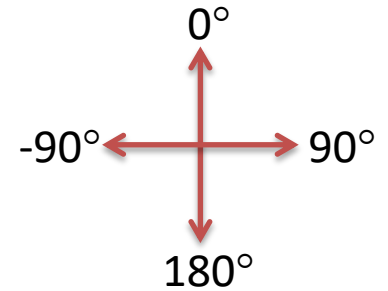


How would you
control it with
arrows instead?

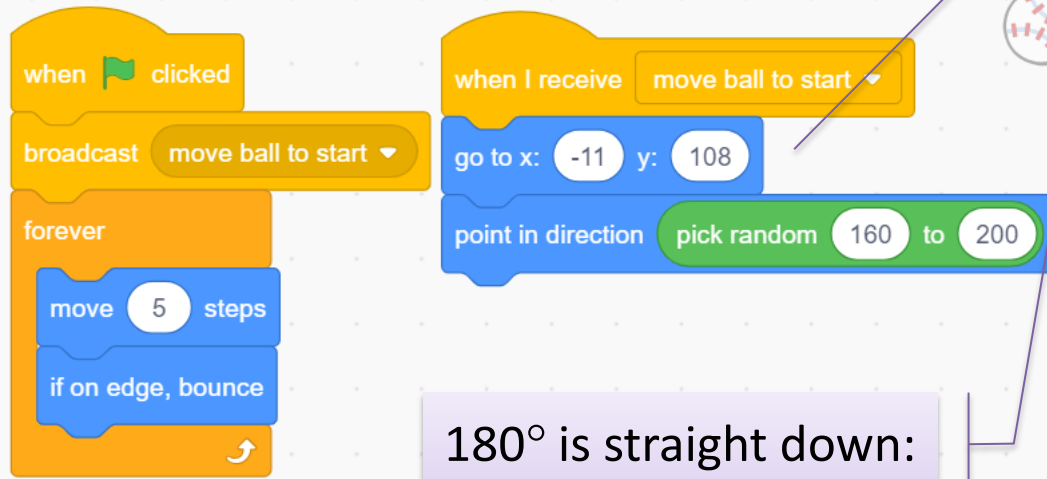
Make the Ball Sprite & Basic Code to Move it



I used a standard image



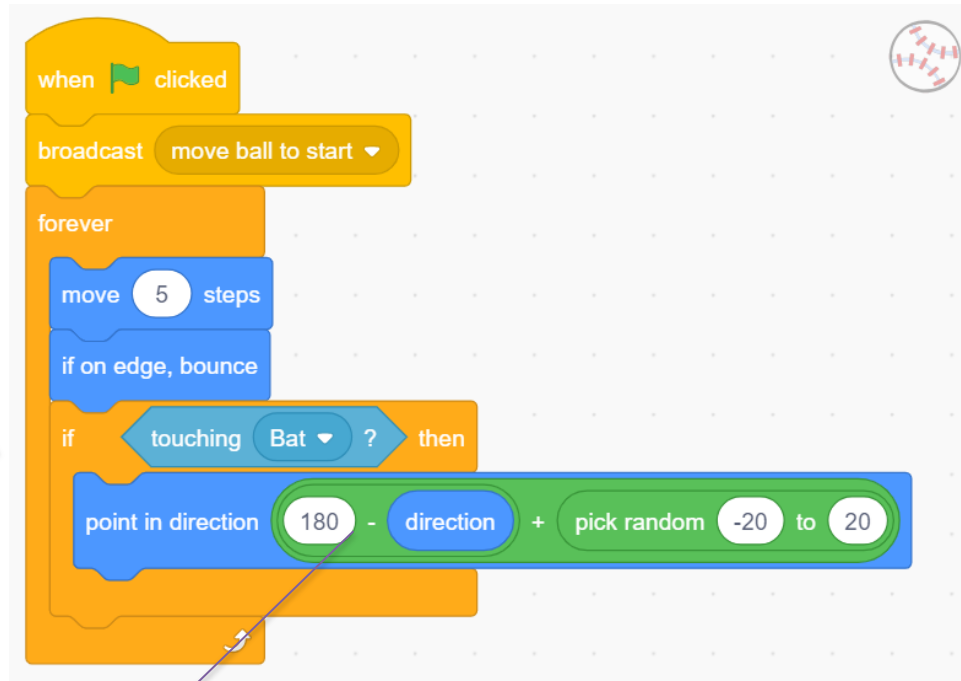
Will use this to reset position after losing a life



180° is straight down:
pick direction in
range 180 ±20

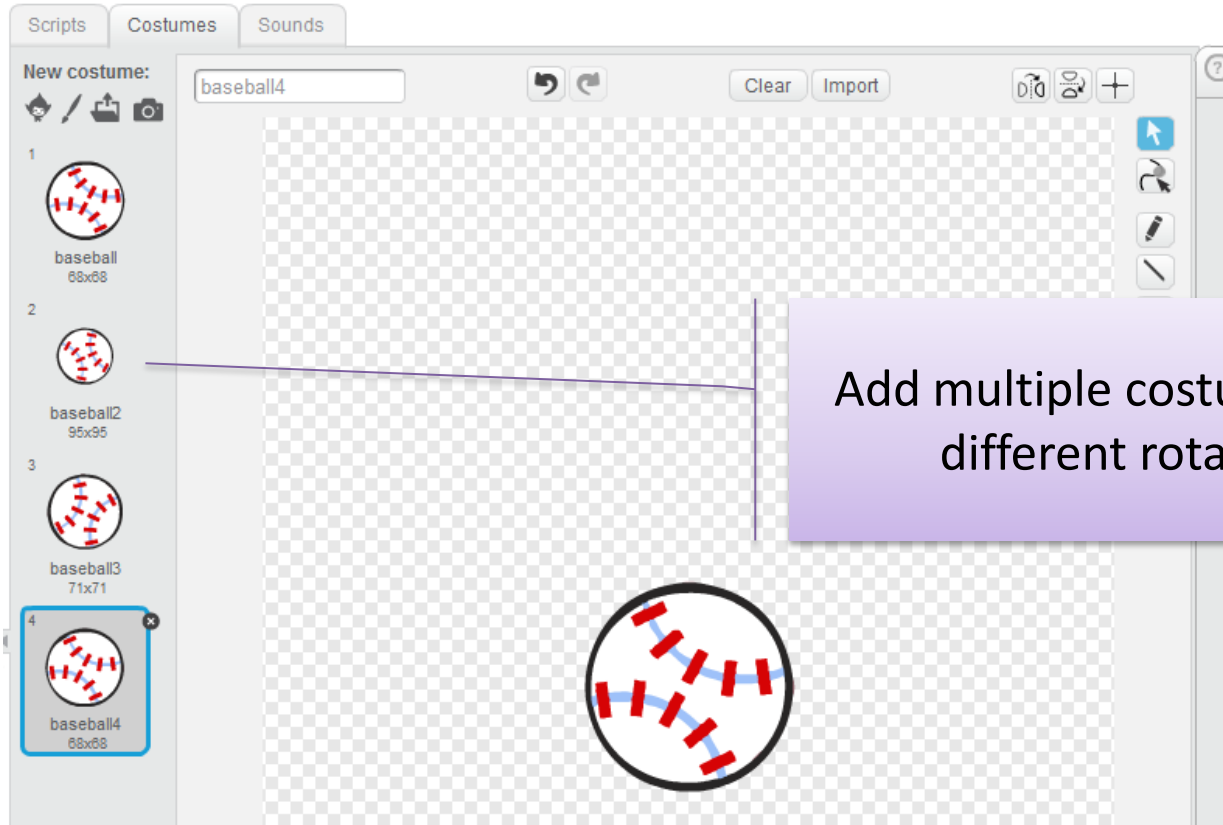
Code for the Ball Sprite to Bounce off the Bat

New block of code to bounce off bat



180° – Direction is opposite direction; add some randomness

Animate the Ball

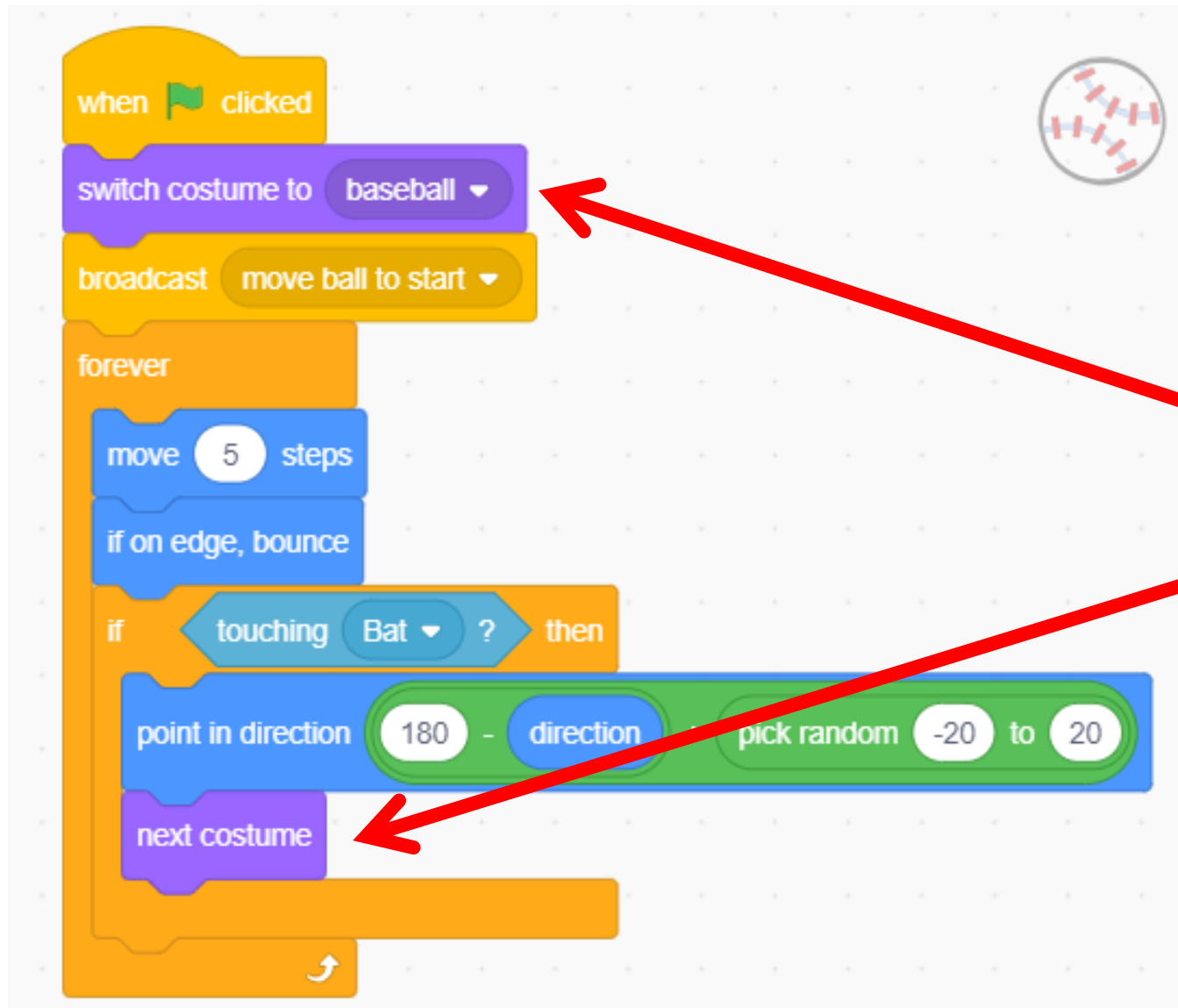


Add multiple costumes with different rotations

Keep switching between costumes:
how can you do this?



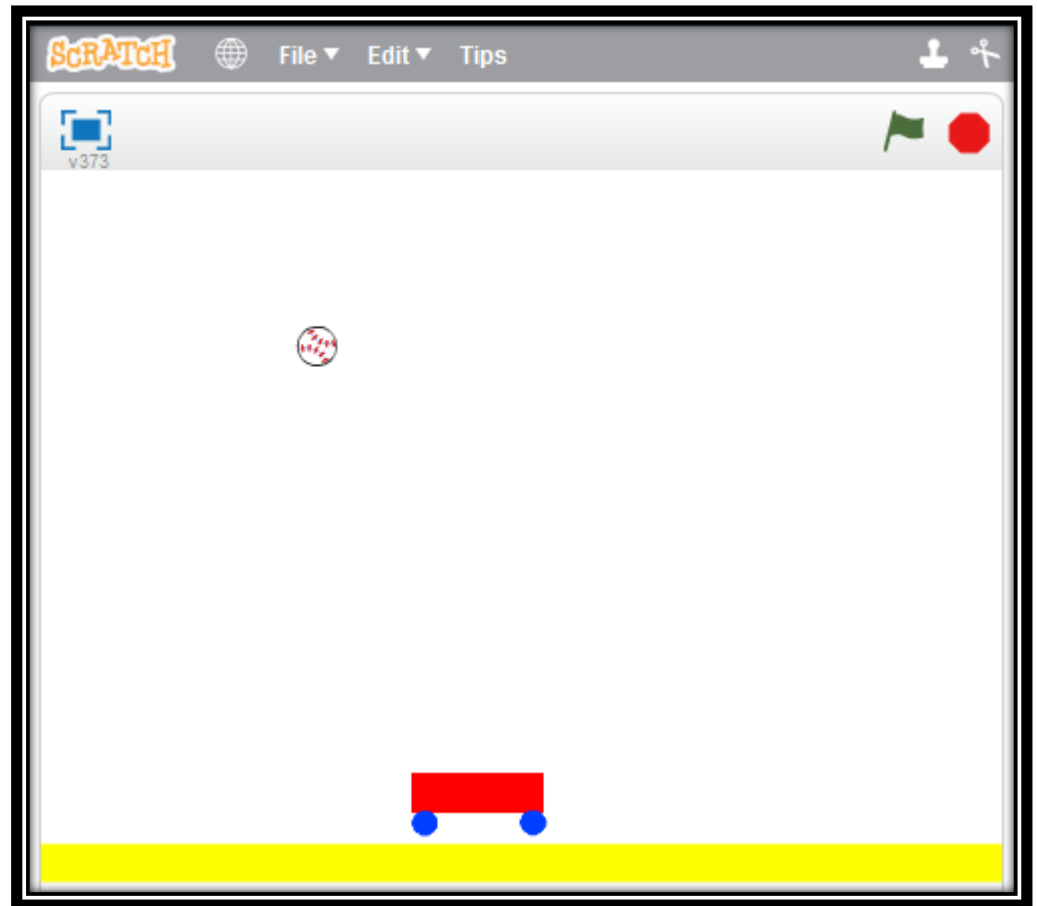
Code to animate the Ball



Add

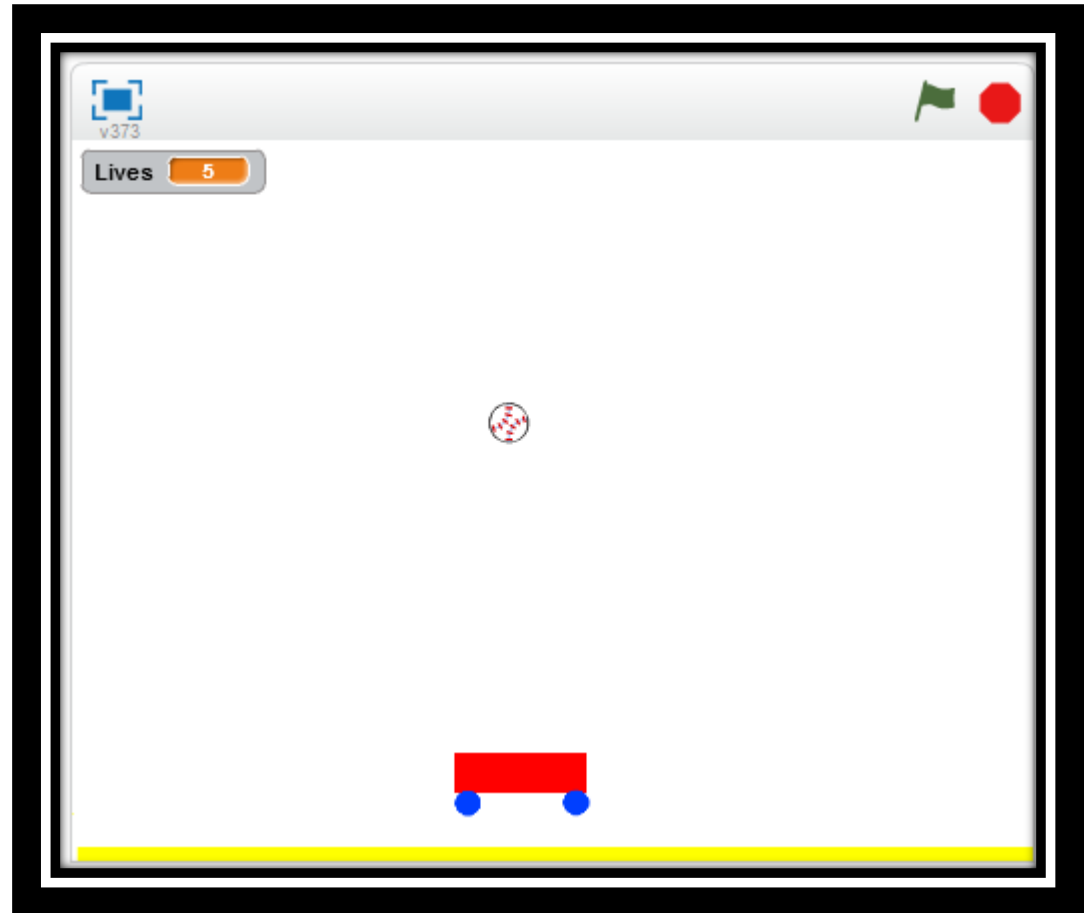
Add an End Line

End Line:
Add Sprite
Or
Draw on Stage

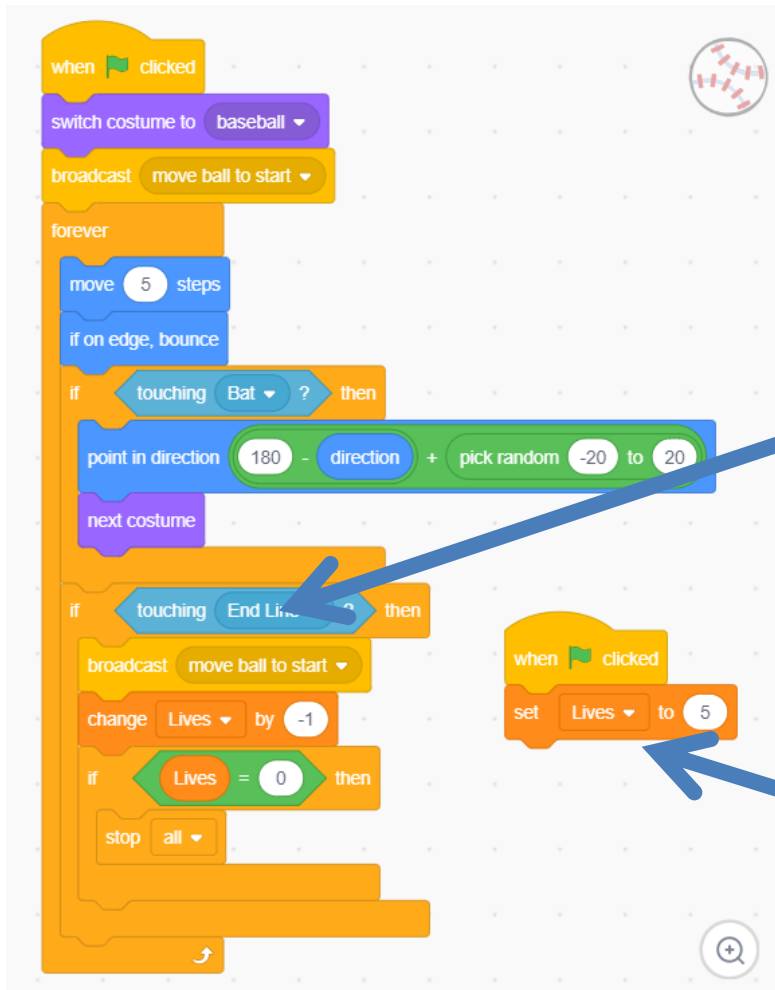


Keep Track of Lives

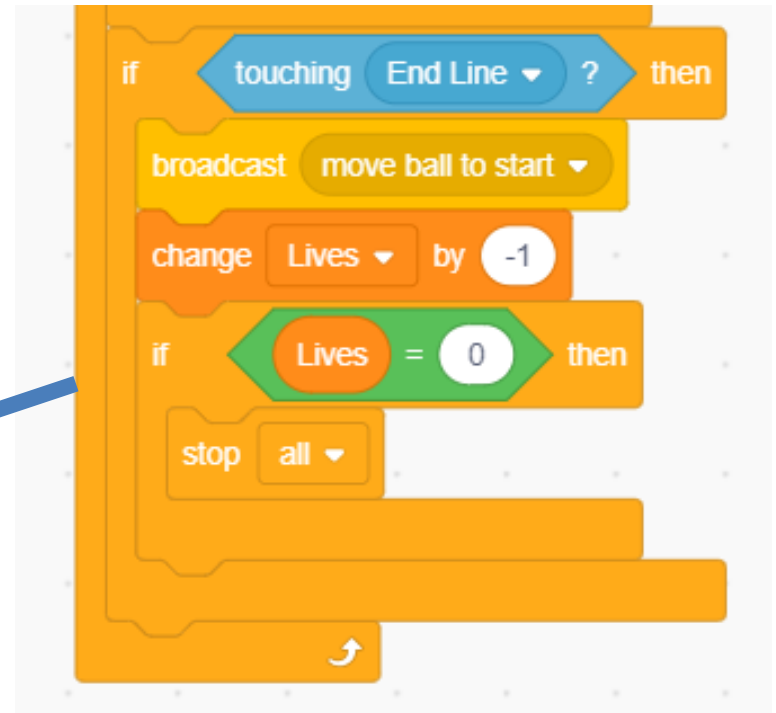
- Variables for Lives
 - Start with Lives = 5
 - Stop if Live = 0
- Reduce Lives by 1
- If Ball touches End Line
- Reset position of ball



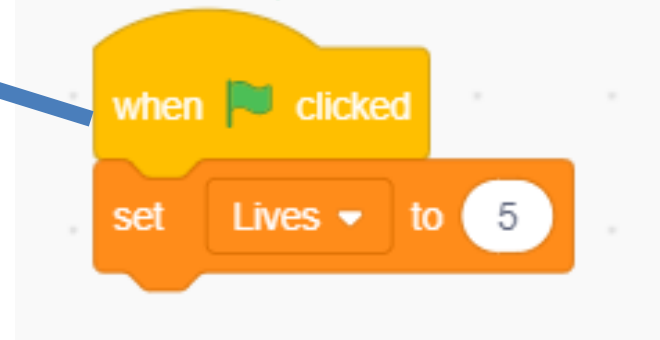
Code



Touching End Line



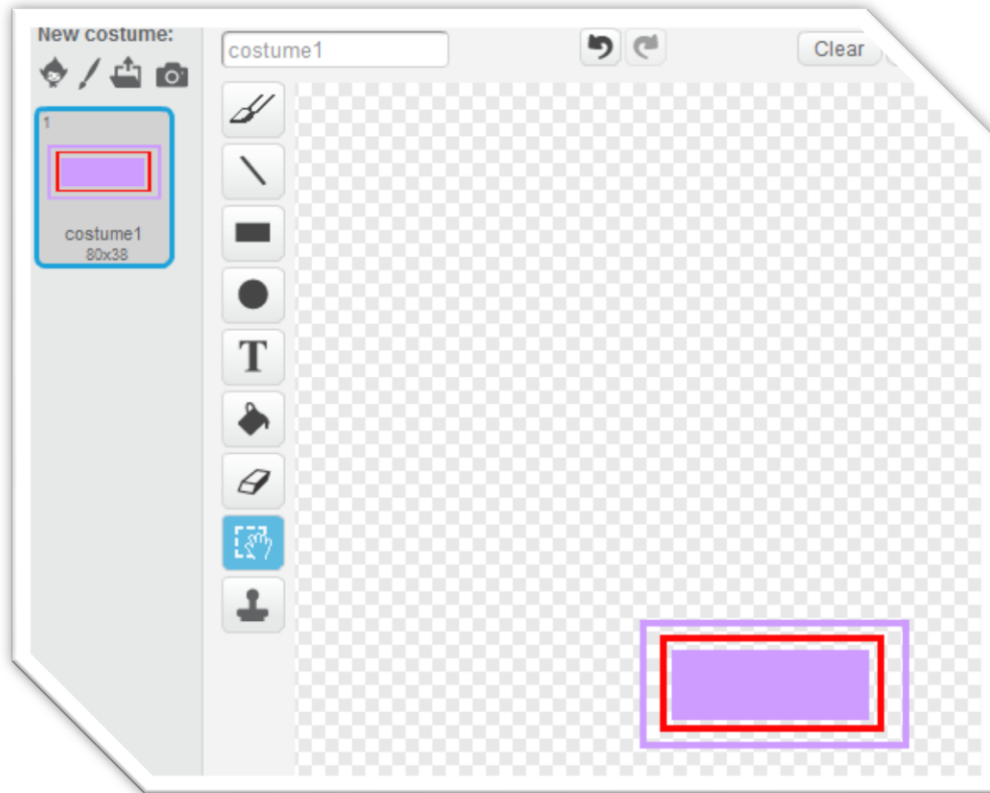
Setting Lives



Add a Music Loop



Design & Code a **Single Brick**

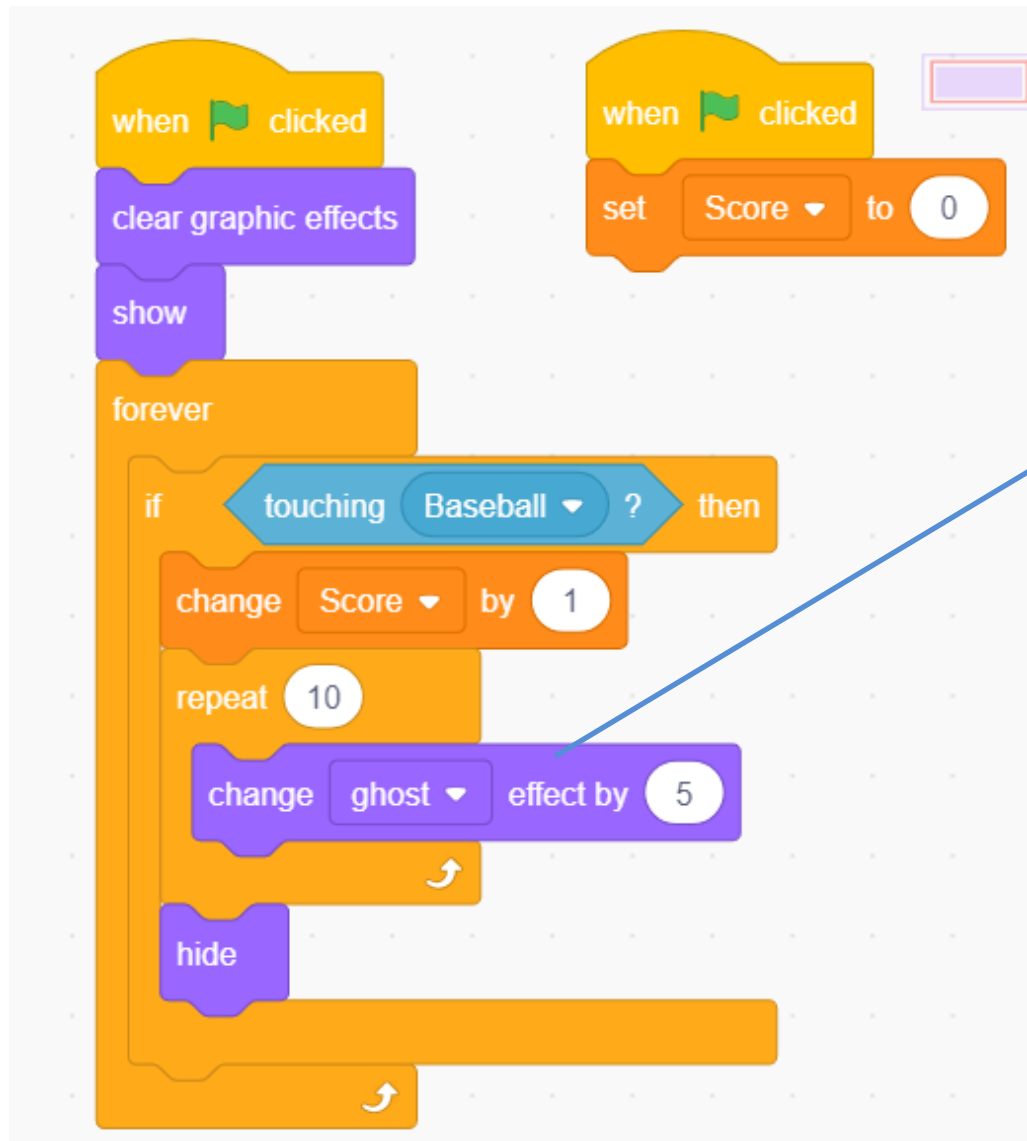


Need a variable for Score

Need code for **Ball** when it receives broadcast:

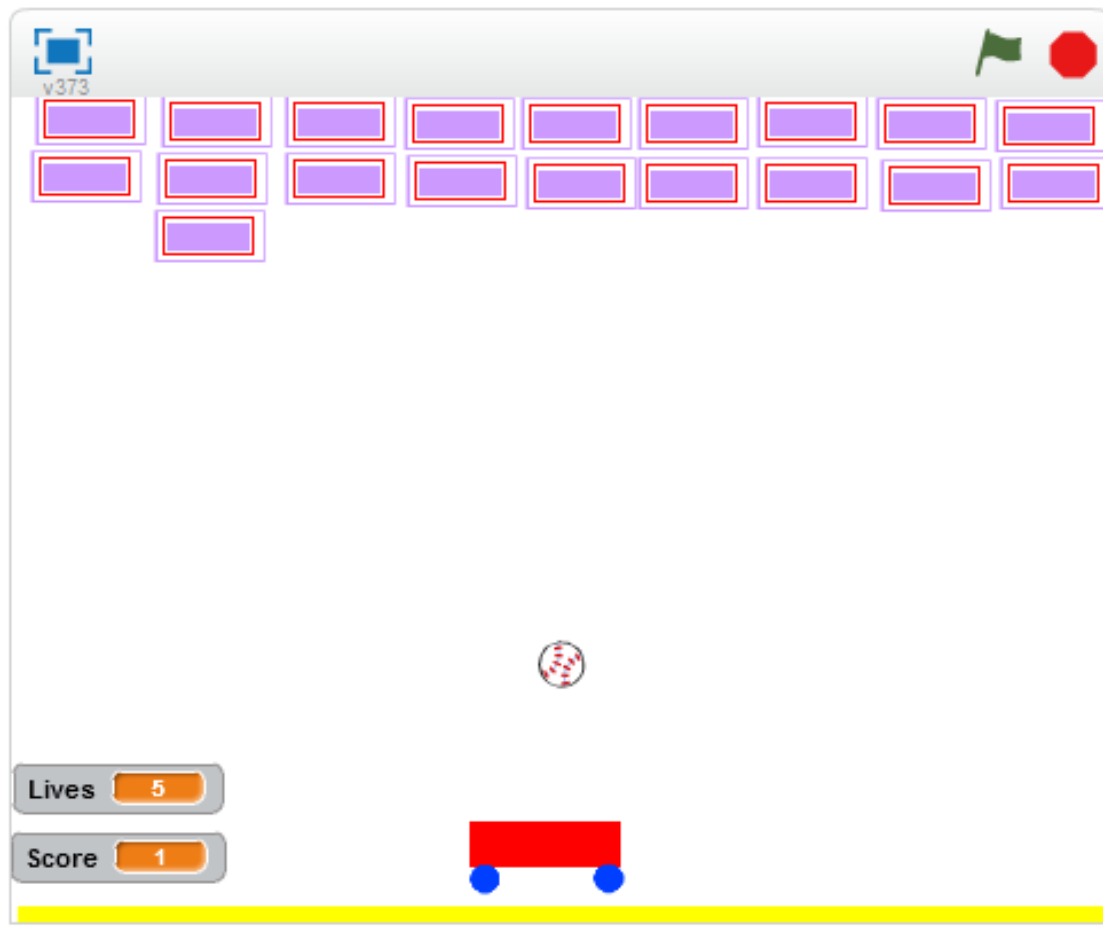
Make a sound effect,
Bounce off brick (copy code for bouncing off bat)

Design & Code a **Single Brick**



Make it fade
slowly

Test the **Single Brick** & **Duplicate** it When You're Sure it Works



At the End ...

Upload your project to the Scratch Website

Access it
from home



Improve it



Show your
friends!



Uploading to Scratch Website

