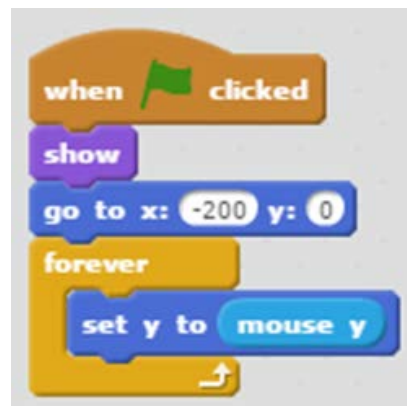


SCRATCH PONG by Linze Tanudjaja

1 First make the Paddles



First, make a rectangle to make the player's paddle. Make sure the centre is in the middle of the paddle. Then, add this script.



Sunnybank Hills



Sunnybank Hills

Card 2 of 8

Scratch Pong

2 After that duplicate the paddles and add this script

```
when clicked
  forever
    if Level = 1 then
      if y position < y position of Sprite3 then
        change y by 4
      if y position > y position of Sprite3 then
        change y by -4
    if Level = 2 then
      if y position < y position of Sprite3 then
        change y by 6
      if y position > y position of Sprite3 then
        change y by -6
    if Level = 3 then
      if y position < y position of Sprite3 then
        change y by 8
      if y position > y position of Sprite3 then
        change y by -8
    if Level = 4 then
      if y position < y position of Sprite3 then
        change y by Ball Speed
      if y position > y position of Sprite3 then
        change y by Ball Speed - Ball Speed + Ball Speed
```

The image shows a Scratch script for paddle movement. It starts with a 'when clicked' event block, followed by a 'forever' loop. Inside the loop, there are four 'if' blocks corresponding to levels 1, 2, 3, and 4. Each level block contains two 'if' blocks: one for when the paddle's y position is less than the ball's y position (Sprite3), and one for when it is greater. The actions are 'change y by' followed by a value: 4 for level 1, 6 for level 2, 8 for level 3, and 'Ball Speed' for level 4. The level 4 'if' block for the greater condition has a more complex expression: 'Ball Speed - Ball Speed + Ball Speed', which effectively results in 'Ball Speed'.

3 The Ball

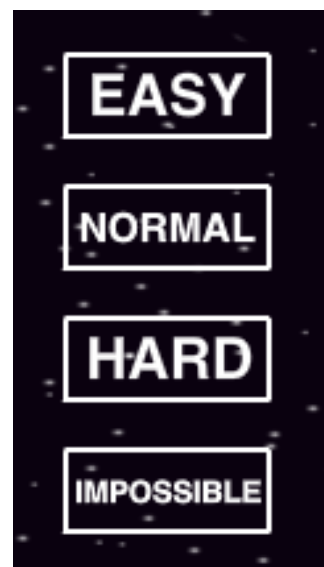
Now you've got to make the ball. Draw a circle in the costume and then add this script. This changes the speed every time the ball hits a paddle



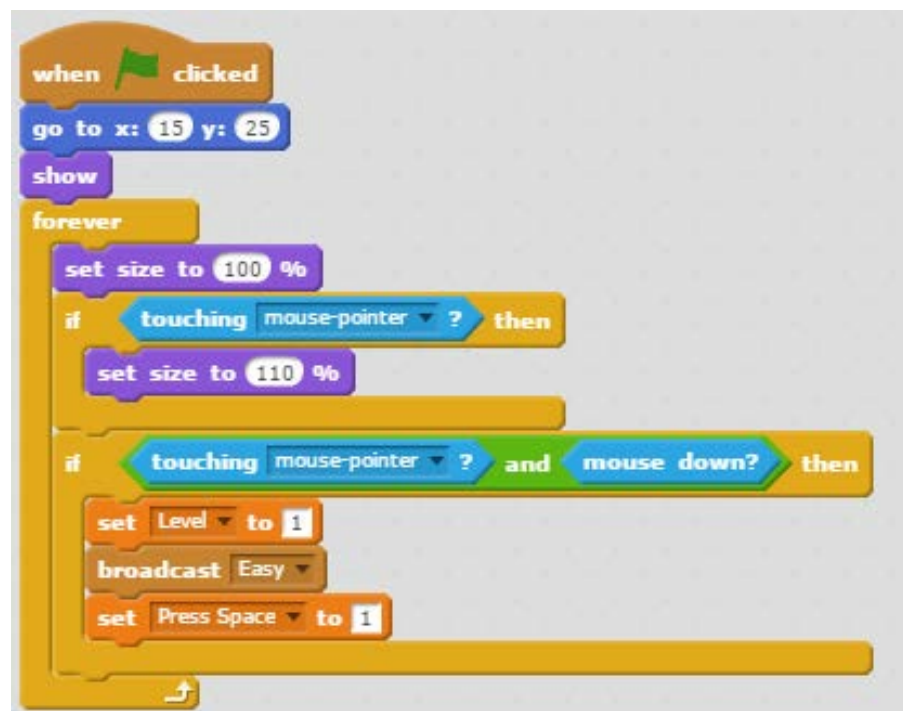
```
when green flag clicked
  show
  go to x: 0 y: 0
  point in direction pick random 40 to 140
  set Ball Speed to 5
  set Press Space to 0
  forever
    if Press Space = 0 then
      show
      if on edge, bounce
      move Ball Speed steps
      if touching Sprite1 ? or touching Sprite2 ? then
        point in direction 360 - direction
        change Ball Speed by 0.2
      if Level = 1 or Level = 2 or Level = 3 or Level = 4 then
        if x position > 200 and touching edge ? then
          broadcast Player Wins
          hide
        if x position < -200 and touching edge ? then
          broadcast Computer Wins
          hide
      if Press Space = 1 then
        set Ball Speed to 5
        go to x: 0 y: 0
        hide
```

4 The Buttons

To change the difficulty of the computer paddle, we're going to add buttons. Make four buttons that show Easy, Normal, Hard and Impossible. Add these scripts in each of them.

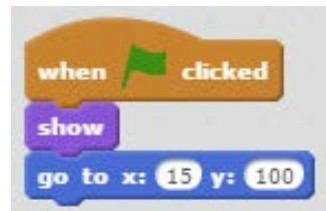


After you've done that, add these scripts in the sprites to make them go to a certain spot you want. Change the messages to the difficulty you want.



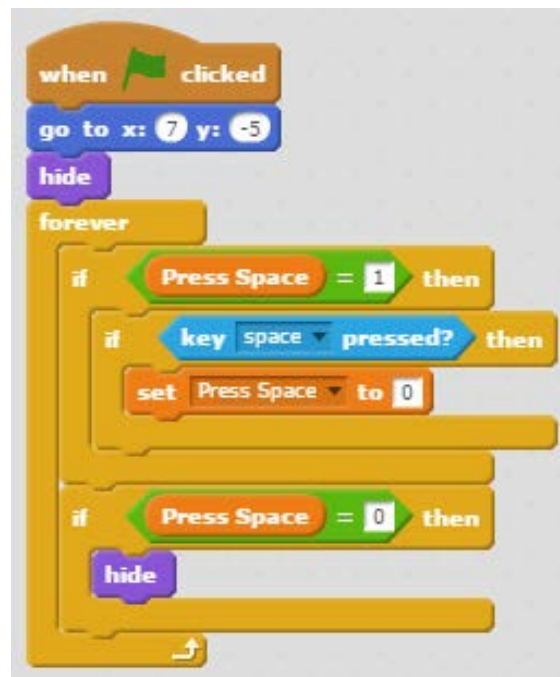
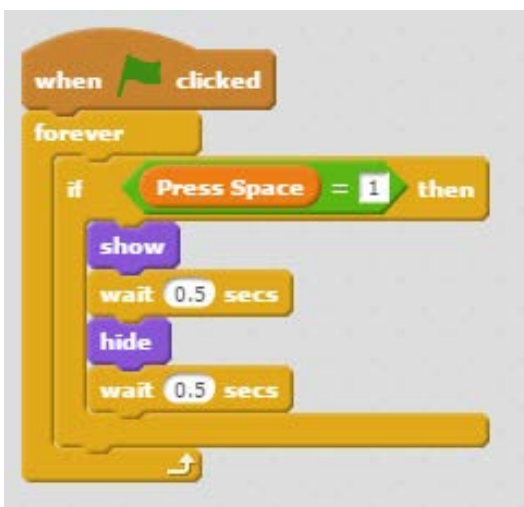
5 Title Sprites

To show the player what to do, make a title sprite saying Select Difficulty, and add these scripts.



6 Start Button

To start the game, make a sprite saying Press Space. This will start the game and make the computer paddle move on its own.



7 Messages

To show a message when either of the players win, make a message sprite and add these scripts.

```
when clicked
hide
go to x: 0 y: 0
```

```
when I receive Player Wins
show
stop all
```

```
when I receive Computer Wins
show
stop all
```



8 You are done, now you can play

