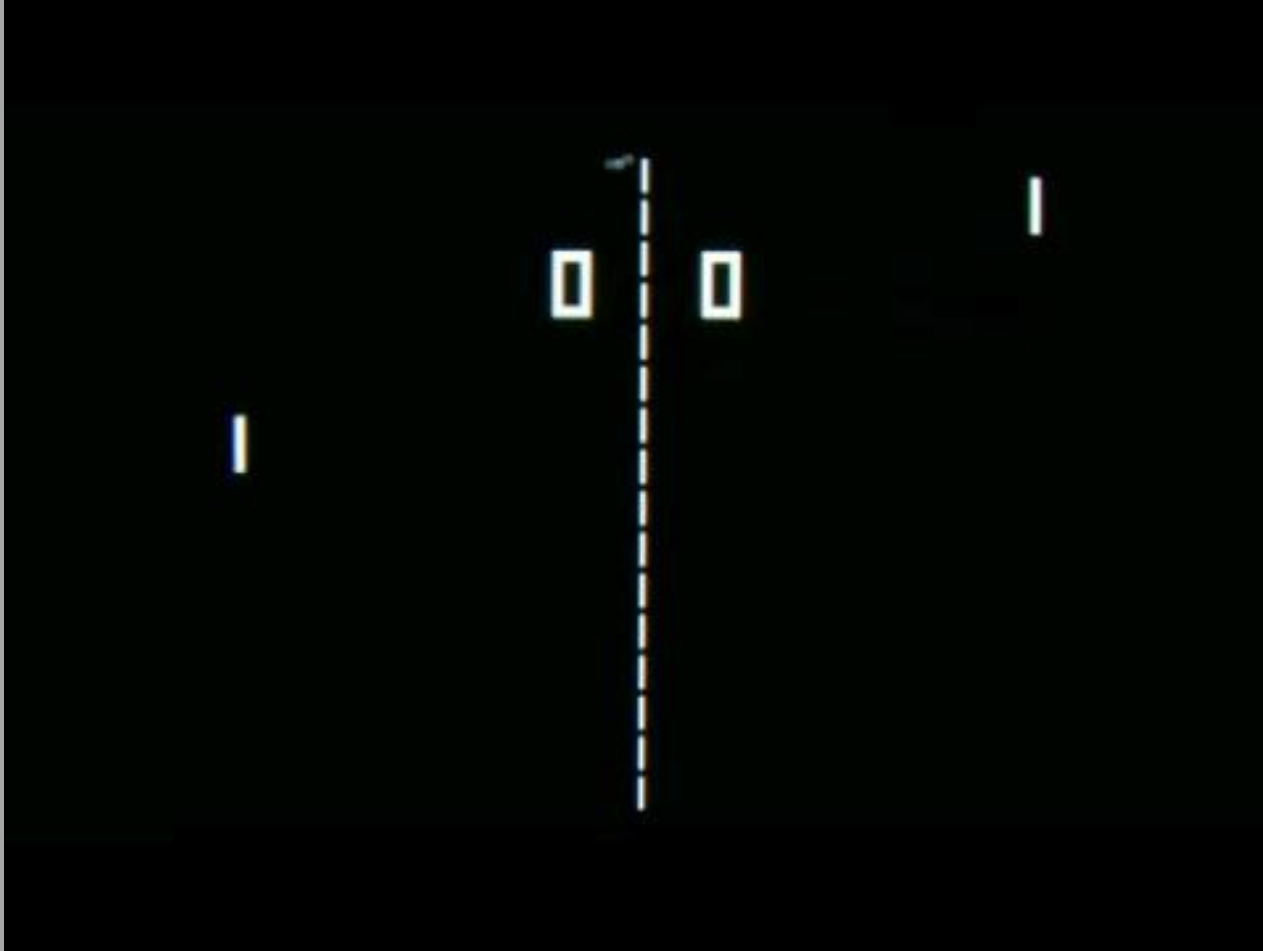




Pong

The original 2 player computer game!

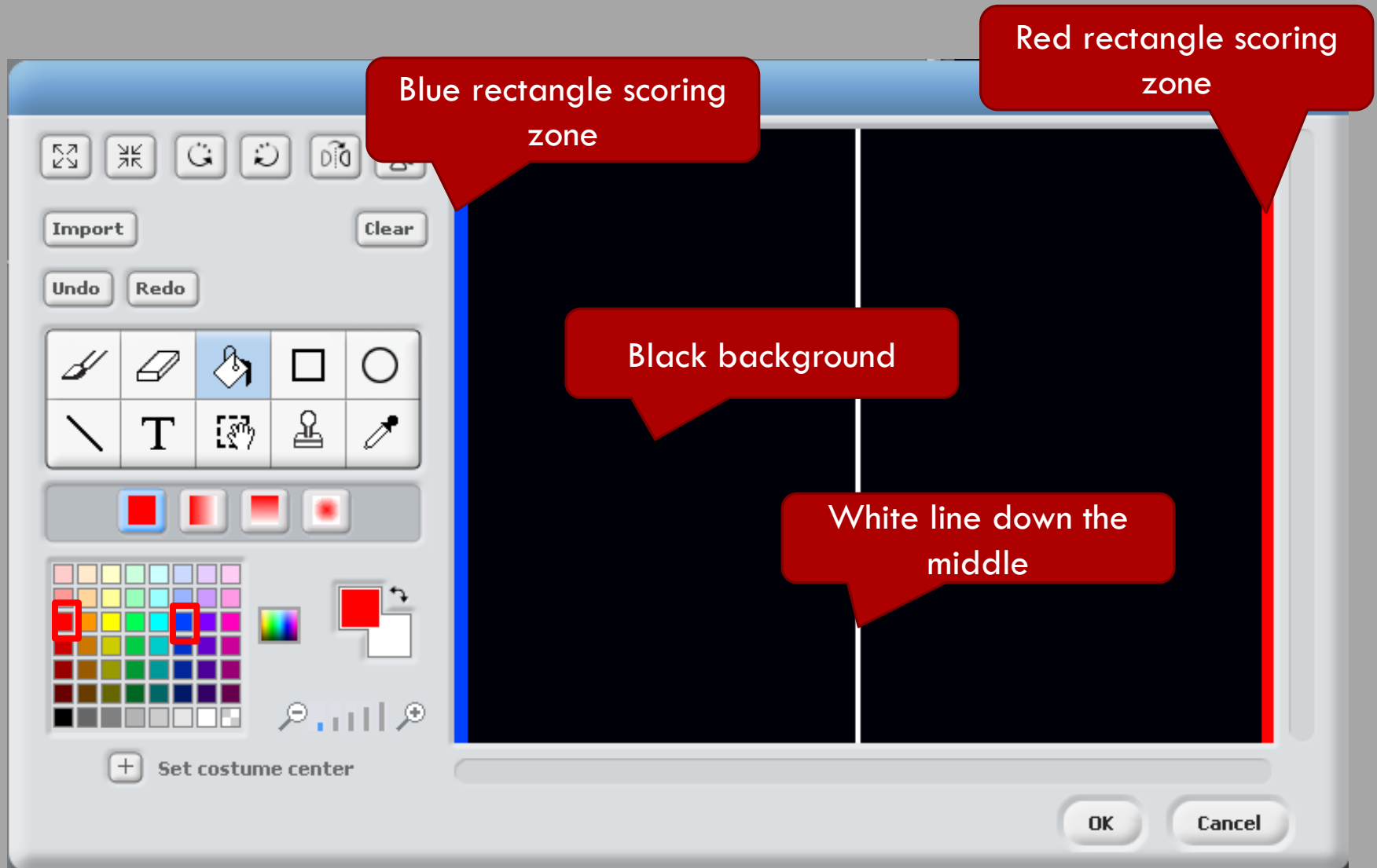
Pong



Objectives

To learn how to create a 2 player game - Pong

Stage

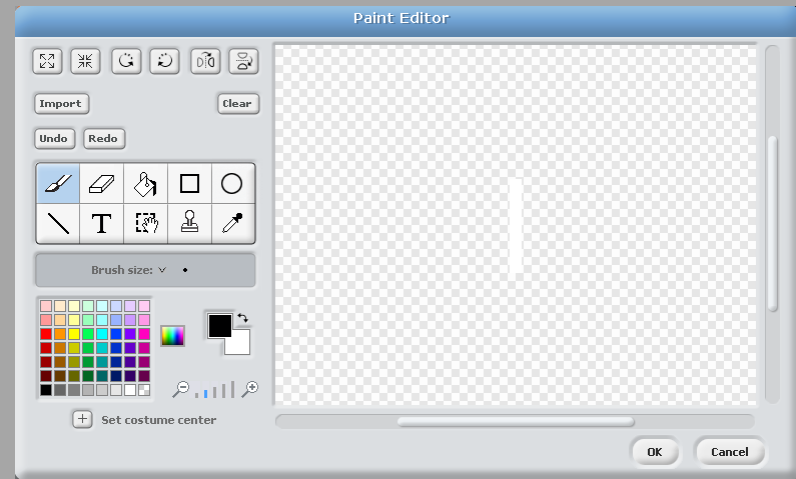


Objectives

To learn how to create a 2 player game - Pong

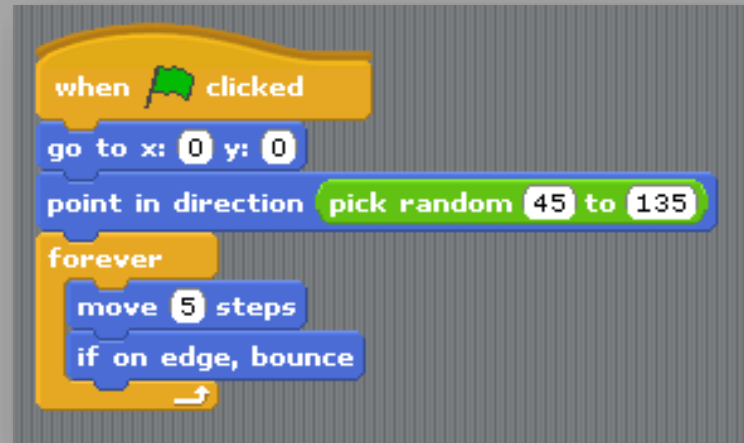
Make the paddles

- Draw a new sprite
- Small white rectangle
- Call is LeftPaddle
- Move to the left hand side
- In the script:
 - When the green flag is pressed
 - Check if a is pressed, if so move up the stage
 - Check if z is pressed, if so move down the stage
- Duplicate the script, rename RightPaddle and make it move up by pressing on the up arrow and down with the down arrow!



Add the ball

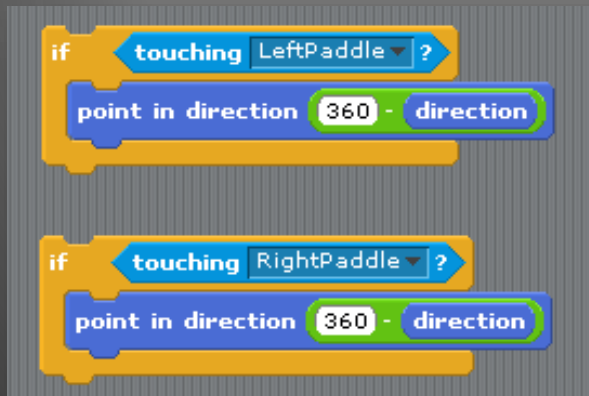
- Either draw a new ball sprite or select a ball and make really small
- Rename as Ball



- When the flag is clicked
- Start from the centre
- Point in the direction of the right hand player (pick a random direction between 45 and 135 degrees)
- Forever move, bouncing off the edges

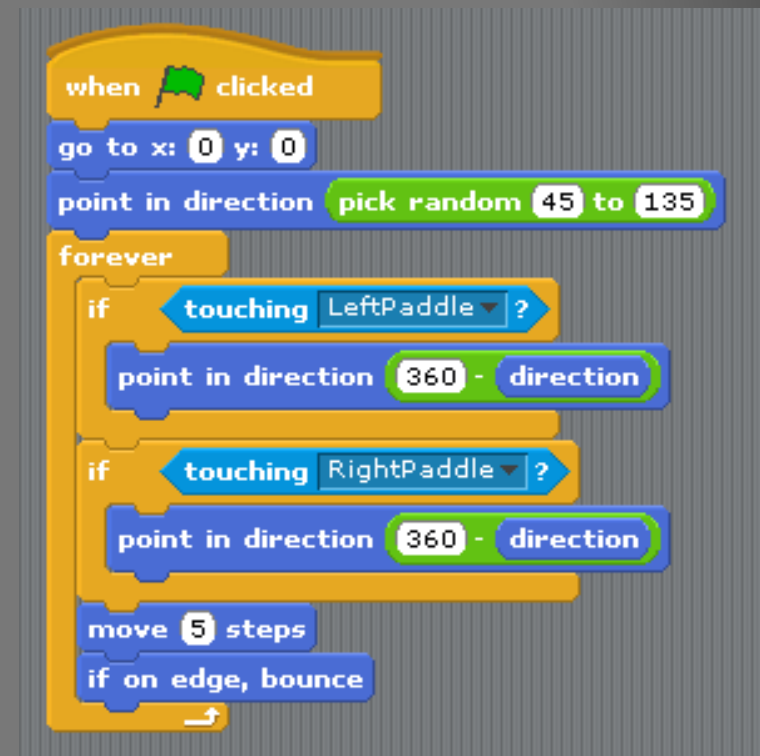
Setting up when the ball hits the paddles

- Set up the script block – in the Ball sprite
- If the ball hits the paddle, point in the opposite direction: 360 minus direction (repeat for both paddles – in the ball sprite)
- Move the blocks to the correct position at the start of the forever move block
- Then test!



```
if touching LeftPaddle ?
  point in direction 360 - direction

if touching RightPaddle ?
  point in direction 360 - direction
```



```
when clicked
  go to x: 0 y: 0
  point in direction pick random 45 to 135
  forever
    if touching LeftPaddle ?
      point in direction 360 - direction
    if touching RightPaddle ?
      point in direction 360 - direction
    move 5 steps
    if on edge, bounce
```

Score board

- You will need to create scores for your game, using the red and blue score zones that you set up at the very start.
- Remember blue = player 1 and red = player 2.
- Create 2 variables to hold the scores: Player1 & Player2
- Move the display of the scores to either side of the stage



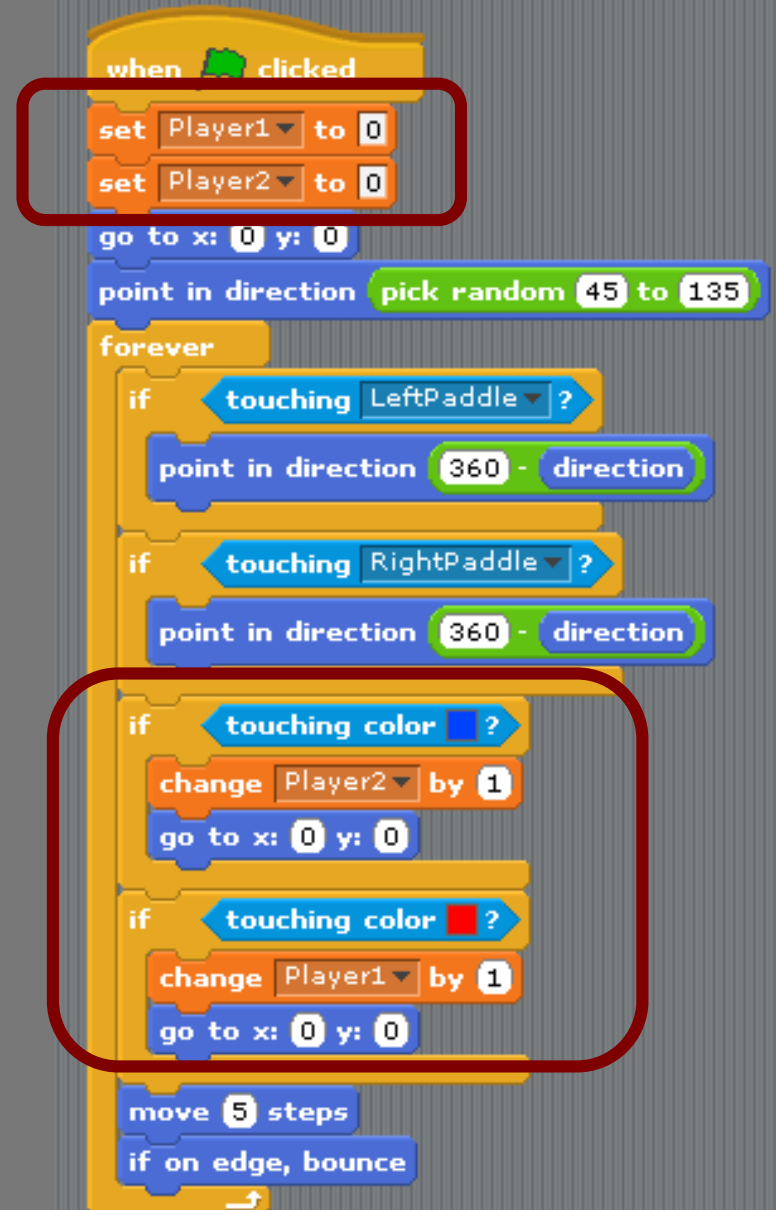
Keeping score

- On the Ball sprite
- Check if the ball touches the colour blue, if so increase Player2 by 1
- Check if the ball touches the colour red, if so increase Player1 by 1



Keeping score

- Move the new script block to the forever block
- Make sure you set the score back to zero at the start
- Make sure you move back to the middle after a score



Improvements

- Add a pause before you start moving after a score
- Change the direction after a score, to go in the opposite (random) direction to the winner of the score (45-135 & 225-315)
- Add the sounds (beep when you hit a paddle & peeeep if you score)

Other suggestions

- Making the paddles shorter?
- Speeding up the ball every time it hits a paddle?
- Adding sounds for when player scores or hits paddle
- 4 players in the game?
- Changing the sprites to be more interesting?
- Making the score zone smaller, maybe add goal posts?
- First player up to 10, then show a congrats background depending on who won