

# BeMyValentine Scratch Game

1

<http://cs.oregonstate.edu/~mjb/scratch>



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# How to Get the Game

There are two ways to get into this game:

1. You can either click on this link directly:

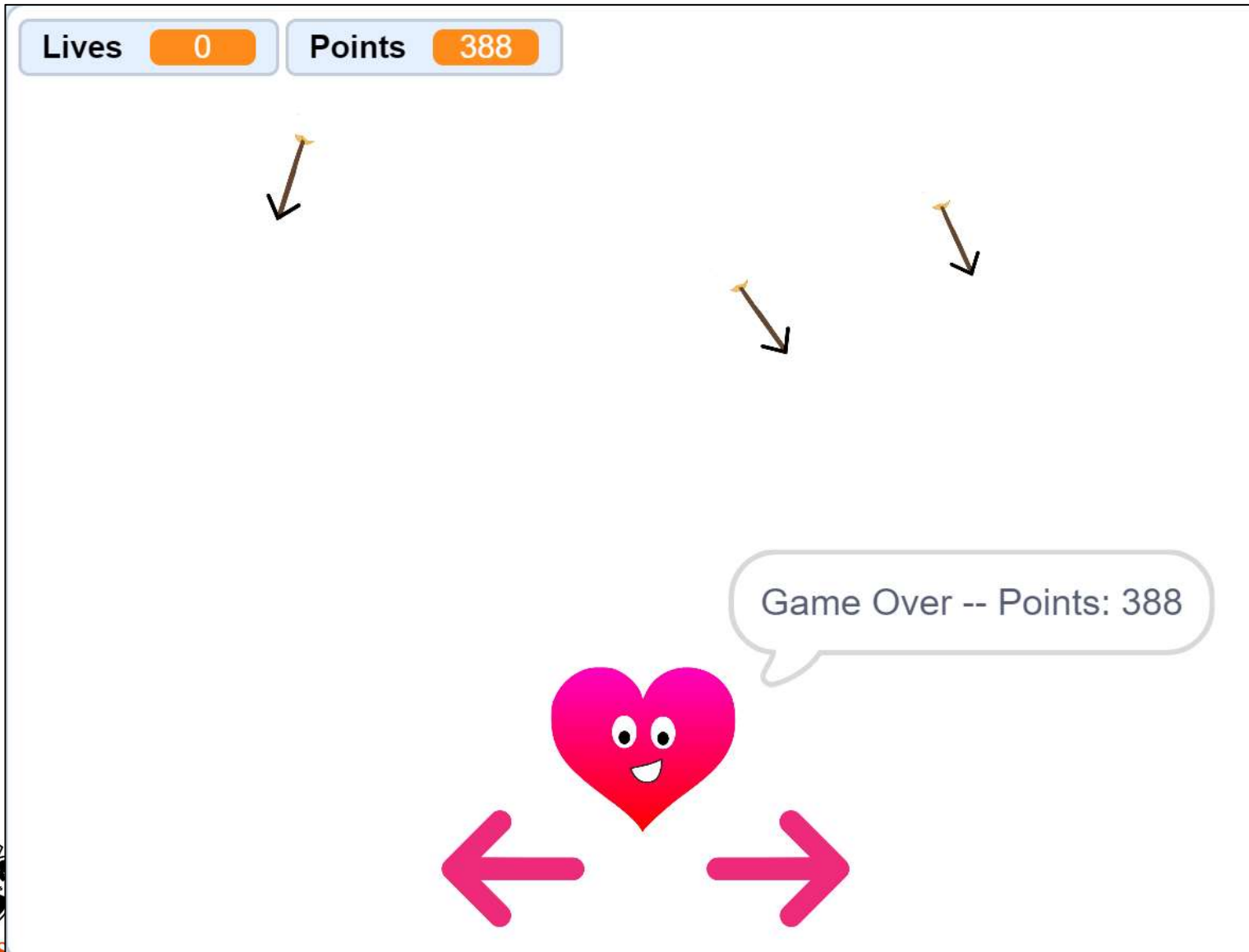
<https://scratch.mit.edu/projects/799176815/editor/>

2. Or, you can go to our Scratch web page:

<http://cs.oregonstate.edu/~mjb/scratch> and click on the link there:

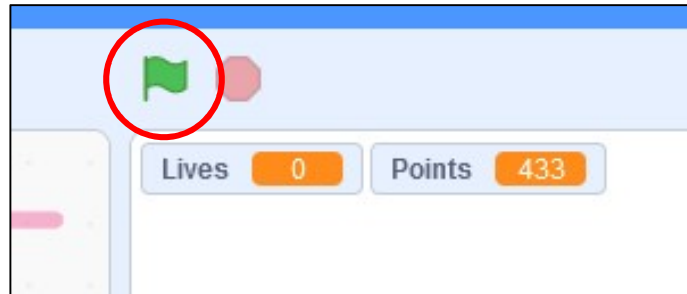


# The *BeMyValentine* Game: The Game Field



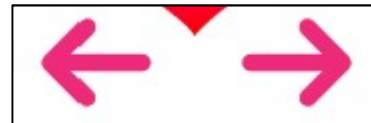
# How to Play the Game

1. Click on the Green Flag to start



Cupid-Arrows will start to rain down from the sky.

2. Touch the left and right Red Touch-Arrows to keep the Heart from getting hit by a Cupid-Arrow



3. You score a point every time a Cupid-Arrow moves and doesn't hit the Heart
4. You lose a Life every time a Cupid-Arrow hits the Heart

# The *BeMyValentine* Game: What the Heart Does



```
when green flag clicked
  set Move to 10
  set Points to 0
  set Lives to 5
  set HeartX to 0
  set HeartY to -100
  go to x: HeartX y: HeartY
```

```
repeat until Lives = 0
  repeat until touching Broom ?
    go to x: HeartX y: -100
    change Points by 1
  change Lives by -1
  start sound Wobble
  broadcast contact!
say join Game Over -- Points: Points
broadcast done!
stop this script
```

# The *BeMyValentine* Game: What the Cupid-Arrows Do



```
when green flag clicked
  hide
  set NumArrows to 5
  repeat (NumArrows)
    create clone of myself
  forever
    hide

when I start as a clone
  point in direction 180
  turn (pick random -30 to 30) degrees
  forever
    StartArrow
    show
    repeat until (y position < -140)
      move (pick random 1 to 3) steps
```



# The *BeMyValentine* Game: What the Cupid-Arrows Do



```
when I receive contact!
  StartArrow

define StartArrow
  hide
  wait pick random 0 to 1 seconds
  set size to pick random 20 to 50 %
  go to x: pick random -220 to 220 y: pick random 60 to 120
  show

when I receive done!
  stop other scripts in sprite
```

## The Big Game Development Challenge:

8

*“Make the game easy to play, but difficult to master.”*

### Things to Try Changing:

1. Start with a different number of Cupid-Arrows
2. Change the range of Cupid-Arrow sizes
3. Change the range of Cupid-Arrow angles
4. Change the range of Cupid-Arrow speeds
5. Change the size of the Heart
6. Give the Heart less or more lives to start
7. Change how much the Heart moves when the Left or Right Touch-Arrow is pressed
8. When a Cupid-Arrow hits the Heart, what other sounds could you play besides “Wobble”?
9. Where else could you add sounds?



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**What makes the game harder to play?**  
**What makes it easier?**



# Change the Characteristics of the Cupid-Arrows



```
when clicked clicked
hide
set NumArrows to 5
repeat NumArrows
  create clone of myself
  forever
    hide

when I start as a clone
  point in direction 180
  turn pick random -30 to 30 degrees
  forever
    StartArrow
    show
    repeat until y position < -140
      move pick random 1 to 3 steps
```



# Change the Characteristics of the Cupid-Arrows



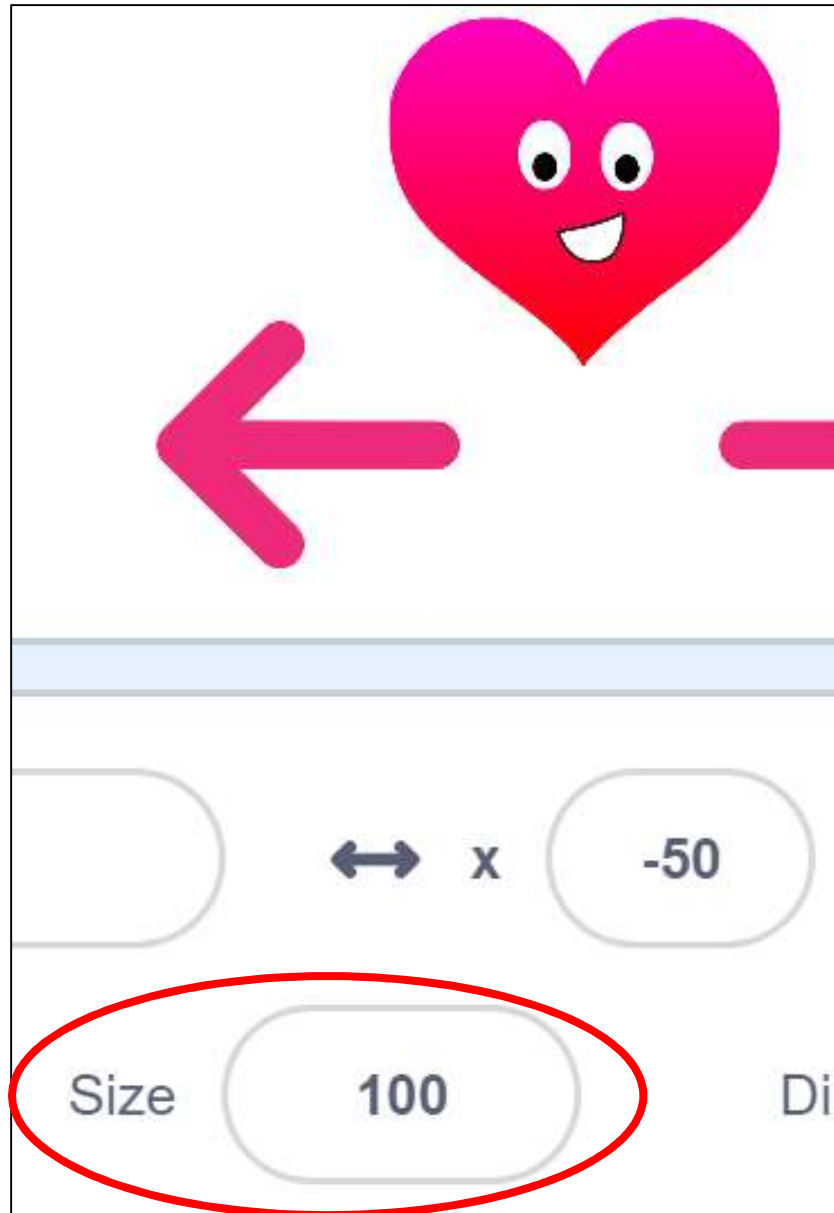
The image shows a Scratch script editor with a grid background. On the left, a script is defined for a function named 'StartArrow'. The script consists of the following blocks: a 'hide' block, a 'wait' block with a duration of 'pick random 0 to 1 seconds', a 'set size to' block with a value of 'pick random 20 to 50 %', a 'go to x' block with a value of 'pick random -220 to 220' and a 'y' value of 'pick random 60 to 120', and a 'show' block. The 'wait', 'set size to', and 'go to x' blocks are circled in red. On the right, there are two event-driven scripts. The top one starts with 'when I receive contact!' followed by a 'StartArrow' block. The bottom one starts with 'when I receive done!' followed by a 'stop other scripts in sprite' block.

# Change the Characteristics of the Heart

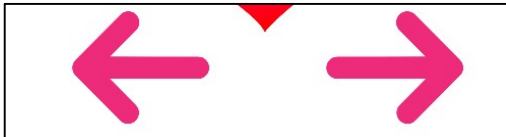


```
when green flag clicked
  set Move to 10
  set Points to 0
  set Lives to 5
  set HeartX to 0
  set HeartY to -100
  go to x: HeartX y: HeartY
```

# Change the Characteristics of the Heart



# Change the Characteristics of the Red Touch-Arrows



```
when clicked
  switch costume to arrow1-b
  forever
    go to x: -50 y: -145
    if mouse down? and touching mouse-pointer ? then
      set HeartX to HeartX - Move
```

Change the **Move** variable in the Heart puzzle pieces

