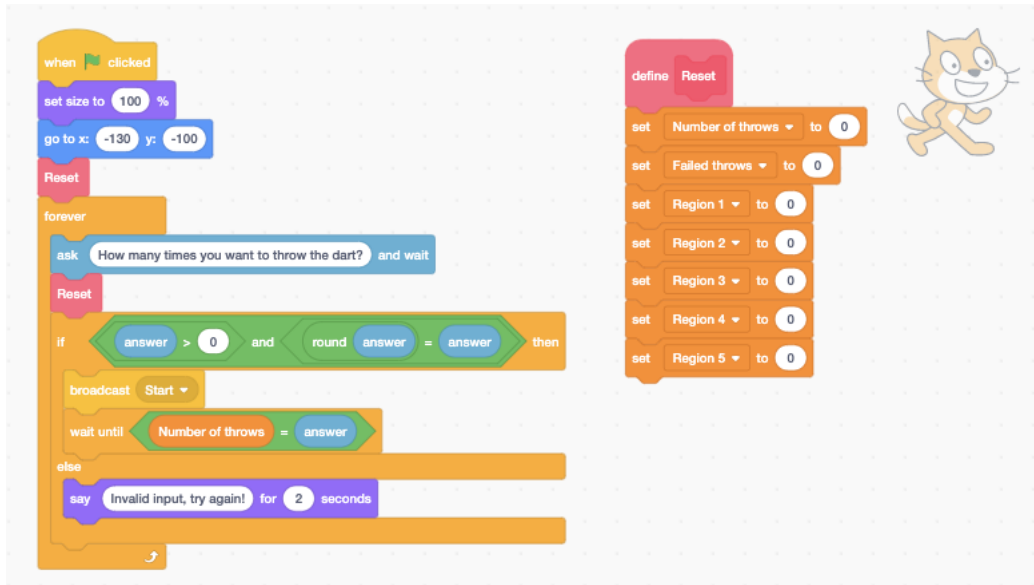


Activity 3 – Dart Game

Cat



The Scratch code for the 'Cat' character is as follows:

```

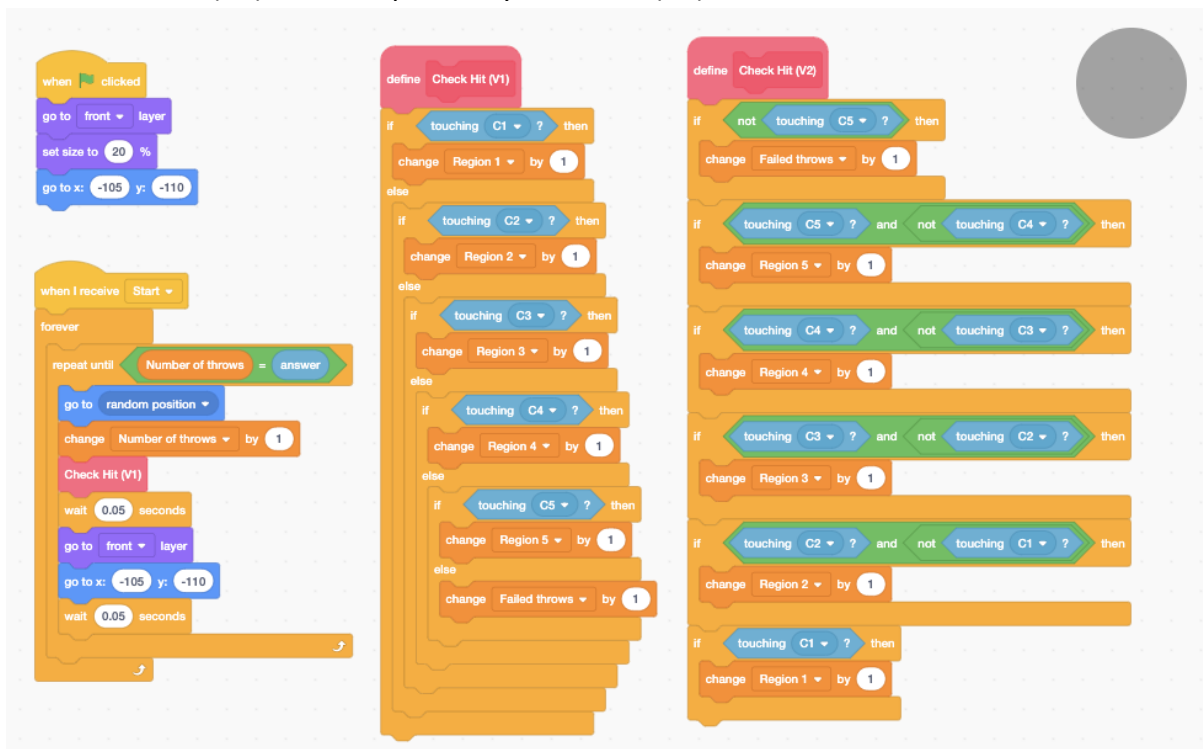
when clicked
  set size to 100 %
  go to x: -130 y: -100
  Reset
  forever
    ask "How many times you want to throw the dart?" and wait
    Reset
    if answer > 0 and round answer = answer then
      broadcast Start
      wait until Number of throws = answer
    else
      say "Invalid input, try again!" for 2 seconds
  
```

The 'Reset' function is defined as:

```

define Reset
  set Number of throws to 0
  set Failed throws to 0
  set Region 1 to 0
  set Region 2 to 0
  set Region 3 to 0
  set Region 4 to 0
  set Region 5 to 0
  
```

Ball *Check Hit (V1) can be replaced by Check Hit (V2)



The Scratch code for the 'Ball' character is as follows:

```

when clicked
  go to front layer
  set size to 20 %
  go to x: -105 y: -110
  when I receive Start
    forever
      repeat until Number of throws = answer
      go to random position
      change Number of throws by 1
      Check Hit (V1)
      wait 0.05 seconds
      go to front layer
      go to x: -105 y: -110
      wait 0.05 seconds
  
```

The 'Check Hit (V1)' function is defined as:

```

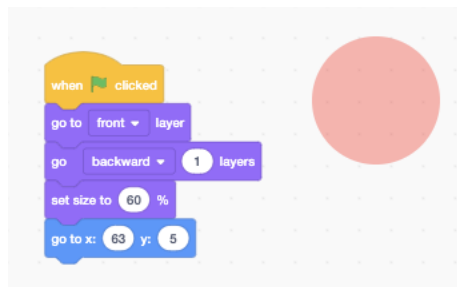
define Check Hit (V1)
  if touching C1 ? then
    change Region 1 by 1
  else
    if touching C2 ? then
      change Region 2 by 1
    else
      if touching C3 ? then
        change Region 3 by 1
      else
        if touching C4 ? then
          change Region 4 by 1
        else
          if touching C5 ? then
            change Region 5 by 1
          else
            change Failed throws by 1
  
```

The 'Check Hit (V2)' function is defined as:

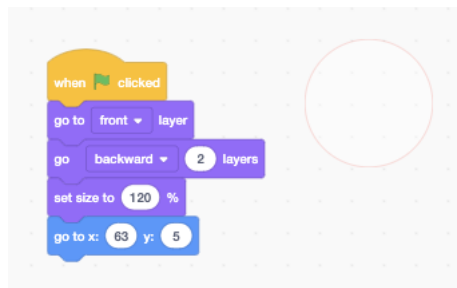
```

define Check Hit (V2)
  if not touching C5 ? then
    change Failed throws by 1
  if touching C5 ? and not touching C4 ? then
    change Region 5 by 1
  if touching C4 ? and not touching C3 ? then
    change Region 4 by 1
  if touching C3 ? and not touching C2 ? then
    change Region 3 by 1
  if touching C2 ? and not touching C1 ? then
    change Region 2 by 1
  if touching C1 ? then
    change Region 1 by 1
  
```

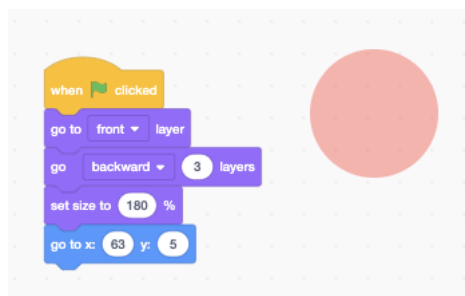
Circle 1



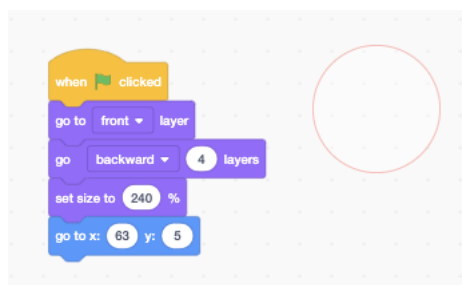
Circle 2



Circle 3



Circle 4



Circle 5

