

## THE CODE:

```
//CCLab Home work week_07
//Cupcake & Strawberry - array - radius - oscillation of an object - mouse
//Processing + Arduino

//new tab
PImage straw1 /*straw2*/;
// array - first give it a name then a length
ArrayList Strawberry;

//Arduino button
import processing.serial.*;
import cc.arduino.*;
int pin = 5;
Arduino arduino;

int sensorValue;

void setup() {
  smooth();
  size(600, 600);

  arduino = new Arduino(this, Arduino.list()[0], 57600);
  noFill();
  noStroke();
  for (int i = 0; i <= 13; i++){
    arduino.pinMode(i, Arduino.INPUT);
  }

  //initialize first step
  Strawberry = new ArrayList();
  Strawberry.add(new Strawberry(width/2, height/2));
```

```

    straw1 = loadImage("straw1.png");
    //straw2 = loadImage("straw2.png");

}

void draw() {
    background(255);

    //Arduino button
    if (arduino.digitalRead(pin) == Arduino.HIGH){
        Strawberry.add(new Strawberry(mouseX, mouseY));
    }
    else {
        fill(0);
        noStroke();
    }

    PImage myImage = loadImage("cake.png");
    imageMode(CENTER);
    image(myImage, width/2, height/2);

    //I'm going to have a array of strawberry
    for(int i = 0; i < Strawberry.size(); i ++){
        Strawberry myStrawberry = (Strawberry) Strawberry.get(i);
        //this where you put it
        //draw the array
        myStrawberry.move();
        myStrawberry.display();
    }

    //ellipse(280, 240, arduino.analogRead(pin), arduino.analogRead(pin));

```

```

println(arduino.digitalRead(pin));

}

/*void mousePressed(){
  Strawberry.add(new Strawberry(mouseX, mouseY));
  //telling what to do - add - calling the constructor
}*/

```

### THE CLASS CODE:

```

class Strawberry {
  //Strawberry images
  PImage straw1 /*straw2*/;
  //color c;
  float xPos;
  float yPos;
  float ySpeed; //speed up and down
  float acc; //gathering speed

  Strawberry(float tempX, float tempY) { //same as class
    //strawberry(float tempYSpeed) { //feeding my donut //to make 1 a different speed
    straw1 = loadImage("straw1.png");
    //straw2 = loadImage("straw2.png");

    //c = color(0, 0, 0);
    xPos = random(0, width);
    yPos = height/2;
    ySpeed = 2; //tempYSpeed// take away the # value to change the speed
    acc = random(0.05, 0.3);
  }
}

```

```
void display() { //can add argument to change the color  
  noStroke();//
```

```
  image(straw1, xPos, yPos, 100, 100);  
  //image(straw2, xPos, yPos, 50, 50);
```

```
}
```

```
void move() {  
  ySpeed += acc;  
  yPos += ySpeed;
```

```
  if ((yPos >= height) || (yPos == 0)) {  
    ySpeed *= -1;
```

```
  }
```

```
}
```

```
}
```