```
//  Austin Matel
//    1/30/20
//  This is a comment
//  The setup function function is called once when your program
begins
var boids = [];
var boidNum = 8;
var count = 0;
function setup(){
  var cnv = createCanvas(800, 800);
  cnv.position((windowWidth-width)/2, 30);
  background(5, 5, 5);
  loadBoids();
}
//done
//  The draw function is called @ 30 fps
function draw(){
  count++;
  frameRate(30);
  runBoids();
}
function loadBoids(){
  for(var i = 0; i < boidNum - boidNum/2; i++){
    boids[i] = new Boid(1);
  }
  for(var i = boidNum/2; i < boidNum; i++){
    boids[i] = new Boid(2);
  }
}
function runBoids(){
  for(var i = 0; i < boidNum; i++){
    boids[i].run();
  }
}

// Austin Matel
//1/30/20
class Boid{
  constructor(id){
    this.id = id;
    this.loc = createVector(random(0,800), 400);
    this.vel = createVector(random(-8,8),random(-8,8));
    this.acc = createVector(0,0);
```

```
      this.clr = color(random(0,255),random(0,255),random(0,255), 25);
  }
  run(){
    this.render();
    this.update();
    this.checkEdges();
  }
  render(){
    if(count < 500){
      for(var i = 0; i < boids.length; i++){
        var disToBoids = this.loc.dist(boids[i].loc);
        if (disToBoids > 100){
          stroke(this.clr);
          strokeWeight(random(0,5));
          if(count % 5 === 0){
            if(this.id === 1 && boids[i].id === 2){
              line(this.loc.x, this.loc.y, boids[i].loc.x,
boids[i].loc.y);
            }
          }
        }
      }
    }
  }
  update(){
    if(count < 500){
      if(this.id === 1){
        this.vel.add(this.acc);
        this.loc.add(this.vel);
      }
      if(this.id === 2){
        this.vel.y = 0;
        this.vel.add(this.acc);
        this.loc.add(this.vel);
      }
    }
  }
  checkEdges(){
    if(this.loc.x > 800){
      this.vel.x = -this.vel.x;
    }
    if(this.loc.x < 0){
      this.vel.x = -this.vel.x;
```

```
      }
      if(this.loc.y < 0){
        this.vel.y = -this.vel.y;
      }
      if(this.loc.y > 800){
        this.vel.y = -this.vel.y;
      }
    }
  }
}


<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <title>Lab130 ArtTwo</title>
    <script src="libraries/p5.js" type="text/javascript"></script>
    <script src="libraries/p5.dom.js" type="text/javascript"></script>
    <script src="libraries/p5.sound.js"
type="text/javascript"></script>
    <script src="sketch.js" type="text/javascript"></script>
    <script src="boids.js" type="text/javascript"></script>
    <style> body {padding: 0; margin: 0;} canvas {vertical-align:
top;} </style>
  </head>


  <body>
  </body>
</html>
```