

```
PVector[] particles = new PVector[10];

void setup() {
  size(500, 500);
  createDots();
}

void draw() {

  // reset the page
  background(220);

  // stores the mouse position
  PVector mousePos = new PVector(mouseX, mouseY);

  // loops through each circles position
  for (PVector currentPos : particles) {

    // half of the diameter of each circle so 50+12.5
    // if the muse is close enough
    if(PVector.dist(mousePos, currentPos) < 65.5){
      fill(255, 0, 0);
      stroke(255, 0, 0);
    } else {
      fill(0);
      stroke(0);
    }
    circle(currentPos.x, currentPos.y, 25);

  }

  // draw mouse circle
  stroke(150);
  strokeWeight(1);
  noFill();
  circle(mousePos.x, mousePos.y, 100);
}

void mouseClicked() {
  createDots();
}

// add new dots in random positions to the array
void createDots(){
  for(int i = 0; i < particles.length; i++){
    particles[i] = new PVector(random(500), random(500));
  }
}
```