class Bug {

// fields

float x;

float y;

float speed;

color c;

int s;

Bug(float x, float y, int s) {

this.x=x;

this.y=y;

this.s=s;

speed = random(1, 1.5);

c = color(random(0, 255), random(0, 255), random(0, 255));

}

void crawl() {

if ( s==1 ){

x += speed;

if ( x > width+15 ){

x = -15;

}

}

else if ( s==2){

x -= speed;

if ( x < -15){

x = width+15;

}

}

else if (s==3){

y += speed;

if ( y > height+15){

y = -15;

}

}

else if (s ==4){

y -= speed;

if (y < -15){

y = height+15;

}

}

}

void display() {

fill(c);

if (s==1 || s==2){

line( x-10 , y-15 , x-10 , y+15 );

line( x , y-15 , x , y+15 );

line( x+10 , y-15 , x+10 , y+15 );

ellipse(x, y, 30, 20);

}

else if (s==3 || s==4) {

line( x-15 , y-10 , x+15 , y-10 );

line( x-15 , y , x+15 , y );

line( x-15 , y+10 , x+15 , y+10 );

ellipse(x, y, 20, 30);

}

}

void squash() {

s = 0;

}

void runAway() {

speed \*= 1.5;

}

boolean mouseOn() {

if (dist( mouseX, mouseY, x, y) < 15) {

return true;

}

return false;

}

boolean scared() {

float s;

if (dist( mouseX, mouseY, x, y) > 15 && dist( mouseX, mouseY, x, y) < 30) {

return true ;

}

return false;

}

}