

Larson_Scanner_Arc_Version

//Larson Scanner Arc Version

//Mr. H.

int r = 200;

int degree = 0;

int bounce = 10;

float x;

float y;

void setup()

{

 size(600,600);

}

void draw()

{

 background(255);

 textSize(20);

 fill(0);

 text("angle = " + degree + "°",20,40);

 //convert degree to radians by multiplying by PI/180

 //shift the angle by 90° by subtracting 90° or PI/2

 x = 300+cos(degree*PI/180-PI/2)*r;

 y = 300+sin(degree*PI/180-PI/2)*r;

 strokeWeight(2);

 fill(0,255,0);

 stroke(0);

 ellipse(x,y,20,20);

 degree = degree + bounce;

 if (degree >= 90 || degree <= -90)

 {

 bounce = bounce * -1;

 }

 delay(120);

}