Larson_Scanner_Arc_Version_Advanced

```
//Larson Scanner Arc Version Advanced Version
//uses the "Gavyn Rubin Effect"
//Mr. H.

int r = 200;
int degree = 0;
int bounce = 10;
float x;
float y;

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

void draw()
{
 fill(255,180);
 rect(-10,-10,620,620);
 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);
}
```