Lissajous GIF

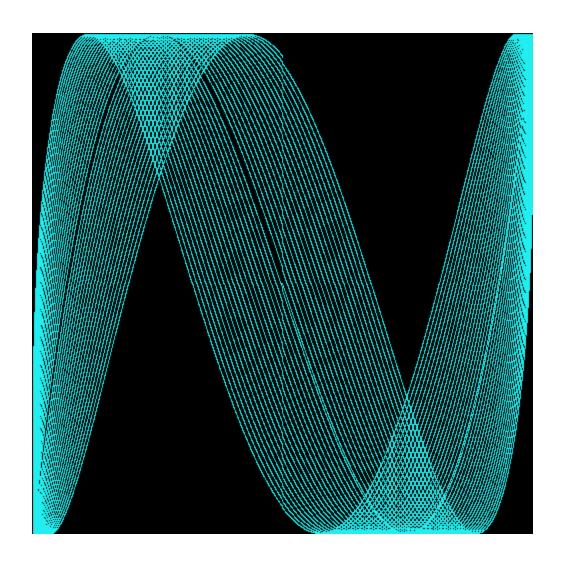
Dates	@March 1, 2023
: Category	PPT
■ Notes	100%
共 Status	Done
∷ Task	Assignment

```
package main
import (
 "image"
  "image/color"
 "image/gif"
  "io"
  "math"
  "math/rand"
 "os"
const (
 whiteIndex = 0
 blackIndex = 1
func main() {
 f, err := os.Create("hehe.gif")
 if err != nil {
   panic(err)
 }
 defer f.Close()
 lissajous(f)
func lissajous(out io.Writer) {
  palette := []color.Color{color.Black}
 const (
   cycles = 20
```

Lissajous GIF 1

```
res = 0.0005
    size = 250
   nframes = 100
   delay = 5
  for i := 0; i < nframes; i++ {</pre>
    palette = append(palette, color.RGBA{34, 238, 239, 1})
 freq := rand.Float64() * 3.0
 anim := gif.GIF{LoopCount: nframes}
  phase := 0.0
 for i := 0; i < nframes; i++ {
   rect := image.Rect(0, 0, 2*size+1, 2*size+1)
   img := image.NewPaletted(rect, palette)
   for t := 0.0; t < cycles*2*math.Pi; t += res {
     x := math.Sin(t)
     y := math.Sin(t*freq + phase)
     xcount := size + int(x*size+0.5)
     ycount := size + int(y*size+0.5)
     img.SetColorIndex(xcount, ycount, blackIndex)
    phase += 0.1
   anim.Delay = append(anim.Delay, delay)
   anim.Image = append(anim.Image, img)
 gif.EncodeAll(out, &anim)
}
```

Lissajous GIF 2



Lissajous GIF 3