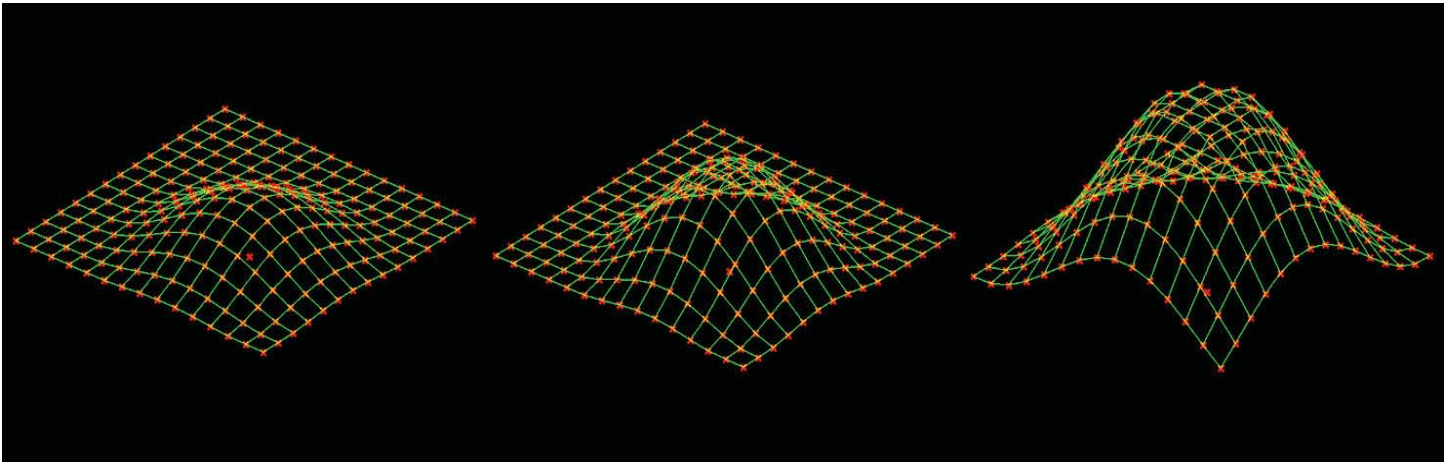


2_1 CONCAVED & CONVEXED LANDSCAPE

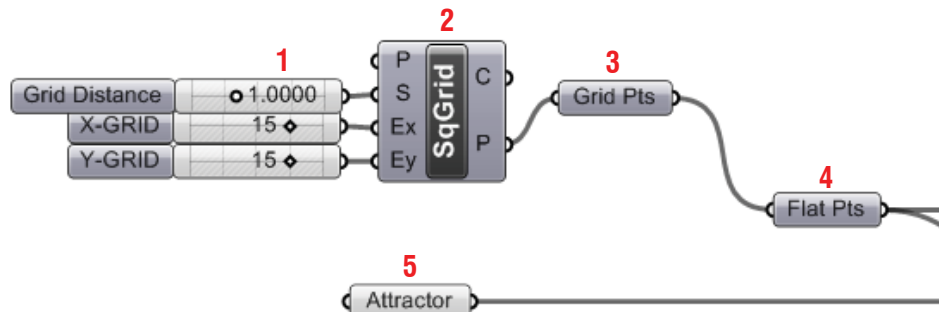


Step1 : Setting up the Point Grid

1. **Slider** x 3 (Params/Special/Number Slider)
 - "Grid Distance" : Floating point, Lower limit=0, Upper limit=3.0, Value=1.0
 - "X-GRID" : Integers, Lower limit=0, Upper limit=20, Value=15
 - "Y-GRID" : Integers, Lower limit=0, Upper limit=20, Value=15

2. **SqGrid**

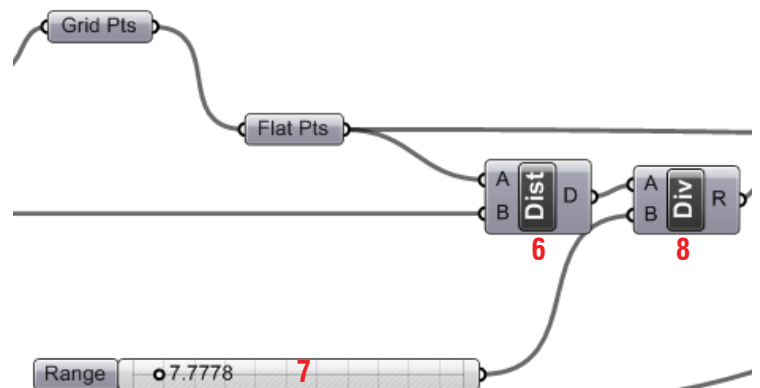
- P : default
- S : "Grid Distance"
- Ex : "X-GRID"
- Ey : "Y-GRID"



3. **Point** (Params/Geometry/Point) : "Grid Pts"
 - SqGrid(P)
4. **Point** (Params/Geometry/Point) : "Flat Pts"
 - Point("Grid Pts")
5. **Point** (Params/Geometry/Point) : "Attractor"
 - Draw one point in Rhino scene
 - Right-click and select 'Set one Point' and select the point in Rhino scene

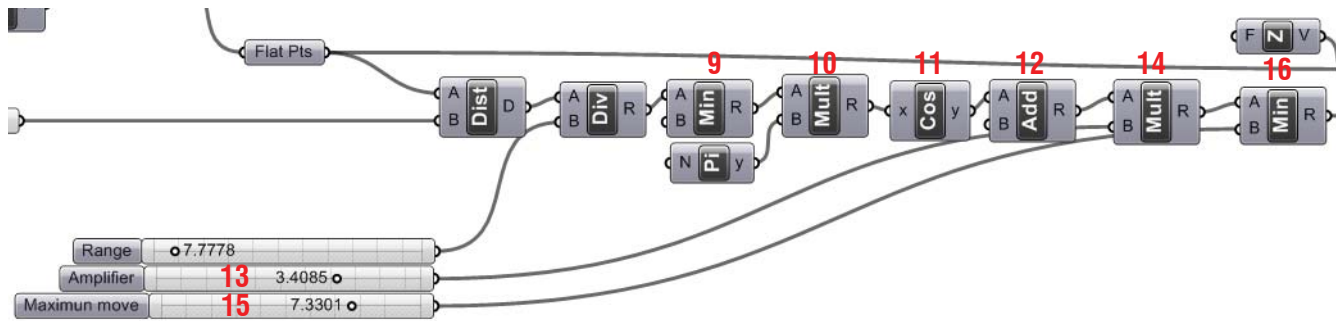
Step2 : Setting up Distance Parameter

6. **Dist** (Vector/Point/Distance)
 - A : Point("Flat Pts") to A
 - B : Point("Attractor") to B
7. **Slider** (Params/Special/Number Slider)
 - "Range" : Floating point, Lower limit=0, Upper limit=50, Value=7.78
8. **Division** (Scalar/Operator/Division)
 - A : Distance
 - B : Slider ("Range")



Step3 : Geometry Deformation Fuction

* $y = A \sin (B \pi x)$ (*y:output, x:parameter, A:amplifier, B:range*)



9. Min (Scalar/Util/Minimum)

- A : *Div*(R)

- B : Right Click and set Number : 1.0

* *The reason to set this component is to limit the deformation value within 0~π on Sine function graph*



10. Mult (Scalar/Operator/Multiply)

- A : *Min*(R)

- B : *Pi*(Scalar/Constants/Pi)

11. Cos (Scalar/Trig/Sine)

- x : *Mult*(R)

12. Add (Scalar/Operator/Add)

- A : *Cos*(y)

- B : 1 (integer)

13. Slider (Params/Special/Number Slider)

- "Amplifier" : Floating point,

Lower limit=0, Upper limit=5, Value=3.40

14. Mult (Scalar/Operator/Multiply)

- A : *Sin*(y)

- B : *Slider*("Amplifier")

15. Slider (Params/Special/Number Slider)

- "Maximum Move" : Floating point,

Lower limit=0, Upper limit=10, Value=7.33

16. Min (Scalar/Util/Minimum)

- A : *Mult*(R)

- B : *Slider* ("Maximum Move")

* *This is for preventing from overflow of point movements*

Step4 : Points Movement

17. Z (Vector/Constants/Unit Z)

- Right click and set Number : -1 (Concaved)

or Right click and set Number : +1 (Convexed)

18. Amp (Vector/Vector/Amplitude)

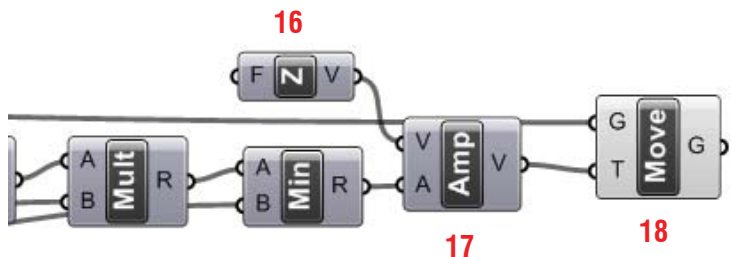
- V : *Z*(V)

- A : *Min*(R)

19. Move (Xform/Euclidian/Move)

- G : *Point*("Flat Pts")

- I : *Amp*(V)



- The End -

Appendix

- Definition map

