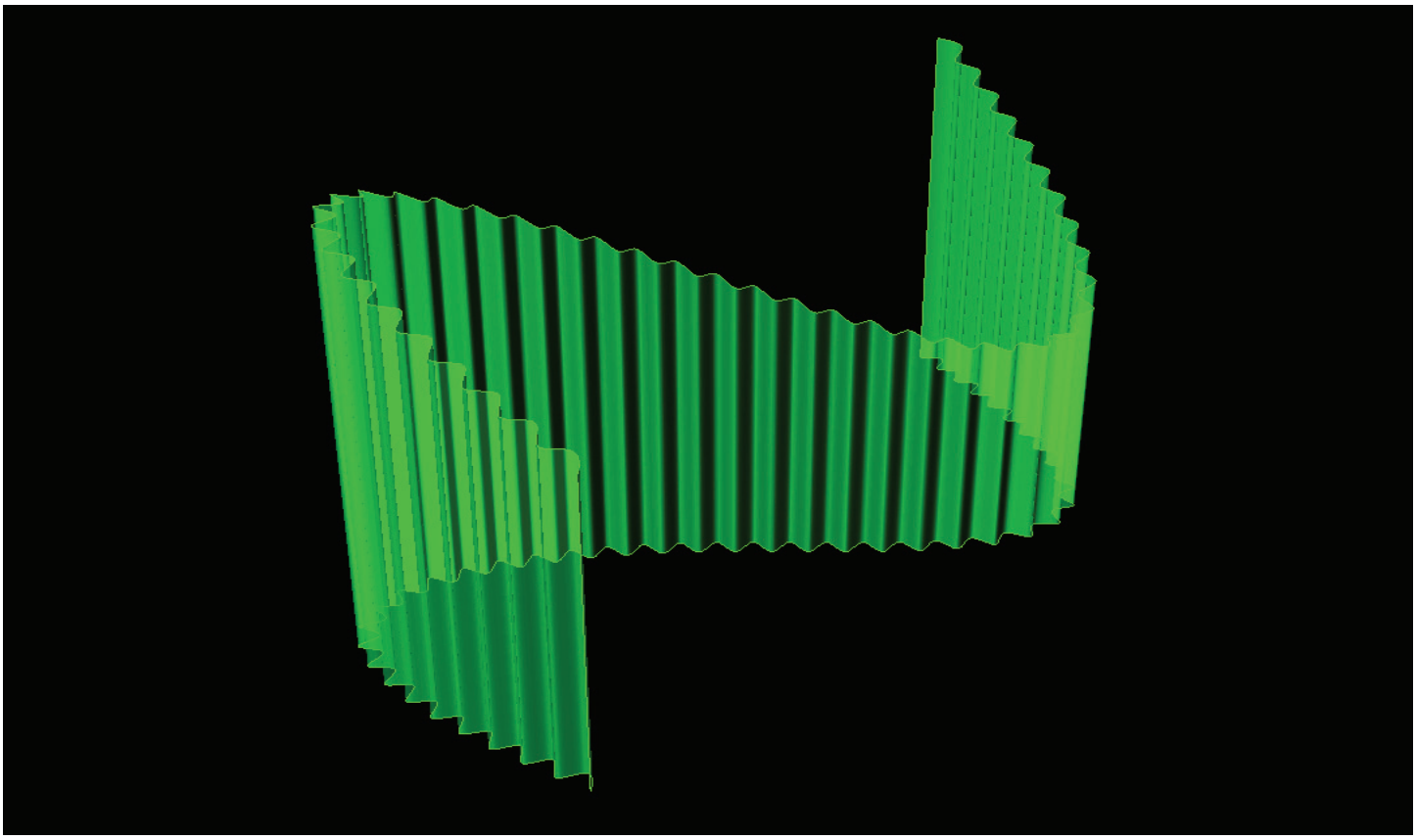
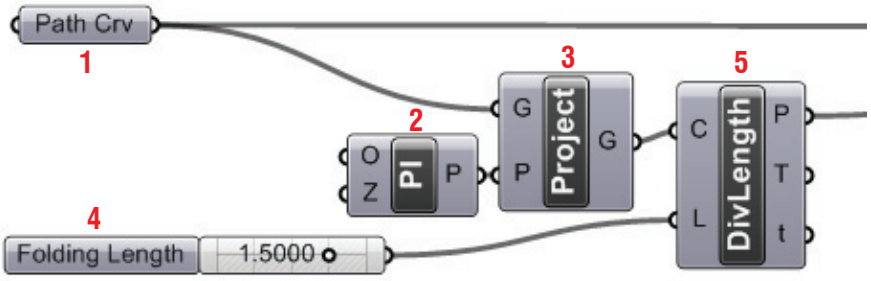
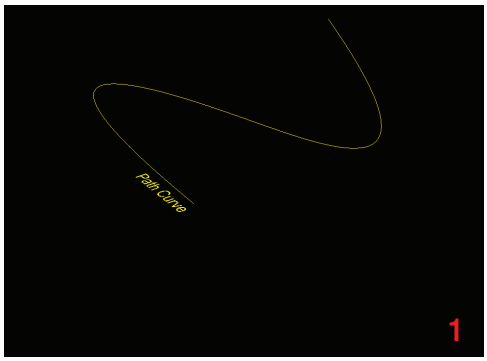
4_2 VERTICAL FOLDING

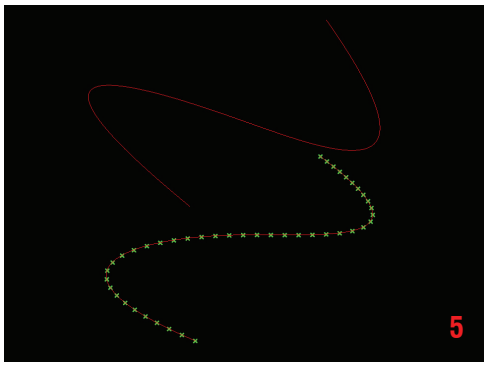


Step1 : Dividing Curve by Length

1. ***Curve*** (Params/Geometry/Curve) : “Path Crv”
- Draw one free curves in Rhino scene
- Right Click and Set one curve : click the target curve in Rhino scene
2. ***Pl*** (Vector/Plane/Plane Normal)
- Default value
3. ***Project*** (Curve/Util/Project)
- G : *Curve* (“Path Crv”)
- P : *Pl* (P)
4. ***Slider*** (Params/Special/Number Slider)
- “Folding Length” : Floating point, Lower limit=0, Upper limit=2.0, Value=1.5
5. ***DivLength*** (Curve/Division/Divide Length)
- C : *Project*(G)
- L : *Slider* (“Folding Length”) to L







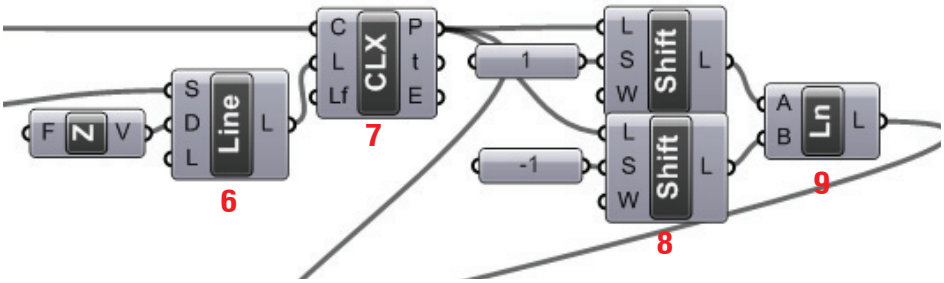
Step2 : Decomposing to Unit Lines

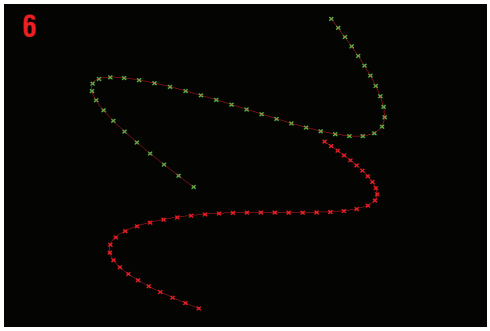
6. ***Line*** (Curve/Primitive/Line SDL)
- S : *Divide Length* (P)
- D : *Unit Z* (Vector/Constants/Unit Z)

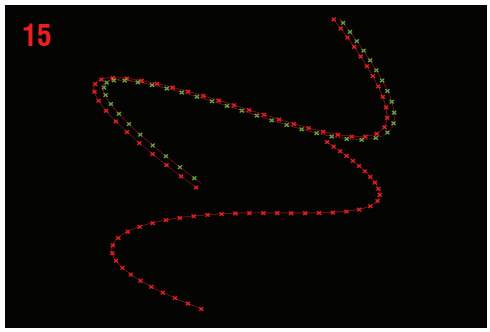
7. ***CLX*** (Intersect/Mathematical/Curve | Line)
- L : *Line SDL* (L)
- Lf : default(false)

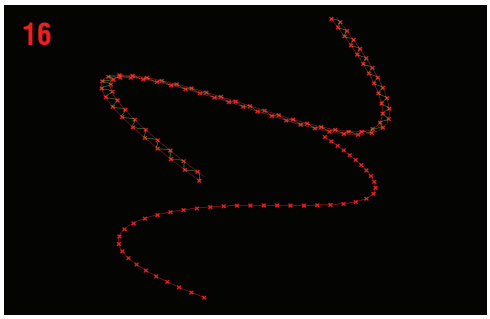
8. ***Shift*** (Logic/List/Shift List) x 2
- L : Connect *CLX* (P) for each
- S : +1 (Integer) and -1 (Integer)

9. ***Ln*** (Curve/Primitive/Line)
- A : *Shift* (+1)
- B : *Shift* (-1)









Step3 : Offset and Weaving Points

10. ***Slider*** (Params/Special/Number Slider) x 3
- "Folding Depth" : Floating point, Lower limit=0, Upper limit=2.0, Value=0.8
- "Folding Point" : Floating point, Lower limit=0, Upper limit=1.0, Value=0.5
- "Curve Degree" : Odd numbers, Lower limit=0, Upper limit=5, Value=3

11. ***Offset*** (Curve/Util/Offset)
- C : *Ln* (L)
- D : *Slider* ("Folding Depth")

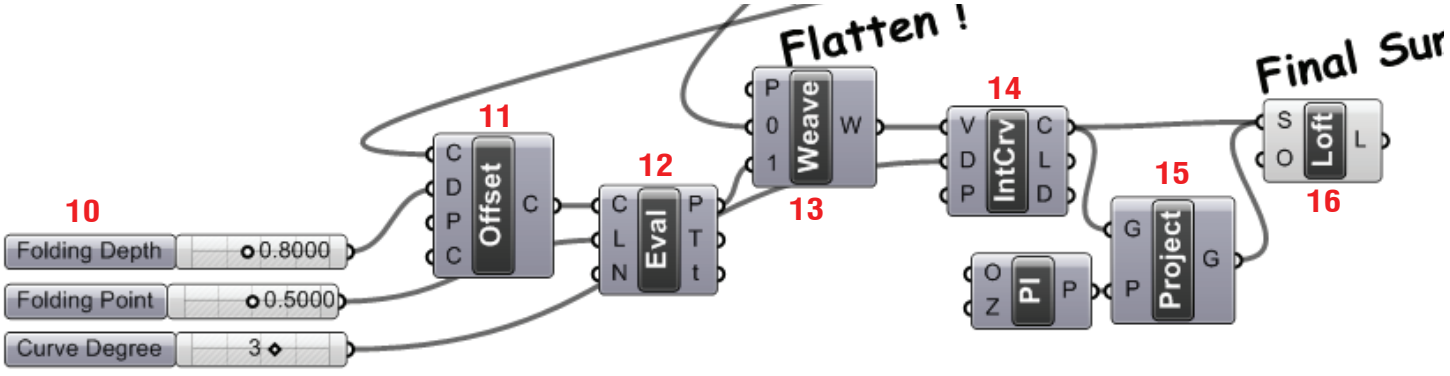
12. ***Eval*** (Curve/Analysis/Evaluate Length)
- C : *Offset* (C)
- L : *Slider* ("Folding Point")

13. ***Weave*** (Logic/List/Weave)
- P : default (0/1)
- 0 : *CLX* (P) -> Right click and Flatten!
- 1 : *Eval* (P) -> Right click and Flatten!

14. ***IntCrv*** (Curve/Spline/Inerpolate)
- V : *Weave* (W)
- D : *Slider* ("Curve Degree")

15. ***Project*** (XForm/Affine/Project)
- G : *IntCrv* (C)
- P : *PI* (default value)

16. ***Loft*** (Surface/Freeform/Loft)
- S : *IntCrv* (C) and *Project* (G)



Appendix
- Definition map