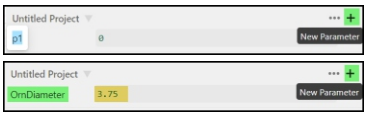
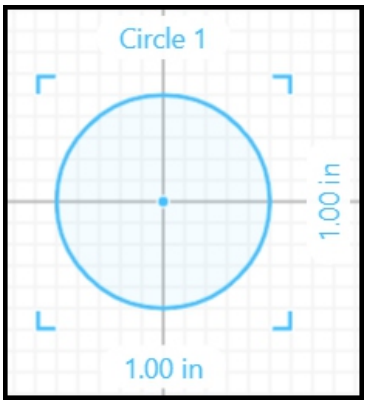
1. Create a new parameter called ***OrnDiameter*** and set the value to ***3.75***



2. Drag a Circle and place the center of it at the center of the Canvas

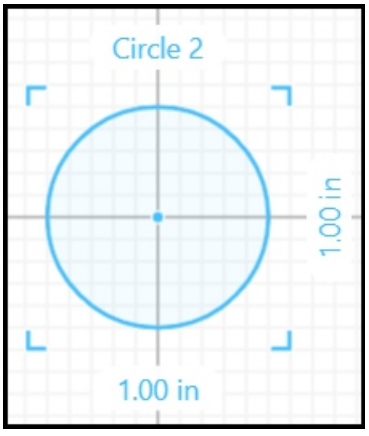


3. Navigate to the *scale* of *Circle 1*, select the *3 dots* and select *Edit Expression*

4. Change the *scale* to be *OrnDiameter*

5. Create a new parameter called ***InsideDia*** and set the value to ***0.1875***

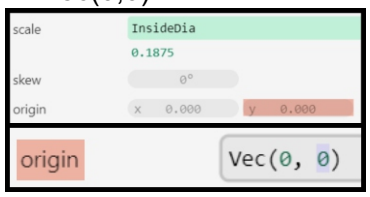
6. Drag a Circle and place the center of it at the center of the Canvas



7. Navigate to the *scale* of *Circle 2*, select the *3 dots* and select *Edit Expression*

8. Change the *scale* to be *InsideDia*

9. Click once in the Y origin field so it looks like below Vec(0,0)

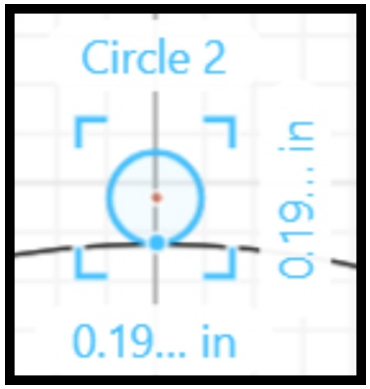


10. Change the second 0 to *0.5* so the string reads *Vec(0,0.5)*

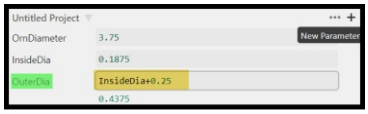
11. Click once in the Y position field so it looks like below - Vec(0,0)

12. Change the second 0 to *-OrnDiameter/2* so the string reads *Vec(0,-OrnDiameter/2)*

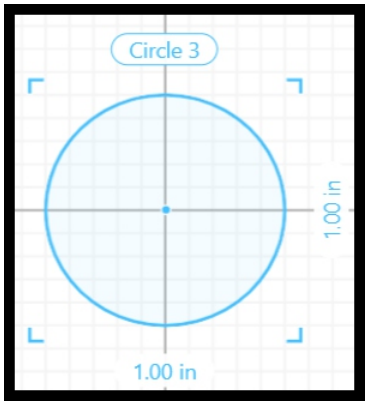
Should look like below



13. Create a new parameter called ***OuterDia*** and set the value to ***InsideDia+0.25***

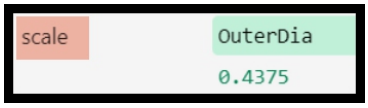


14. Drag a Circle and place the center of it at the center of the Canvas



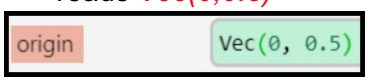
15. Navigate to the *scale* of *Circle 3*, select the *3 dots* and select *Edit Expression*

16. Change the *scale* to be *OuterDia*



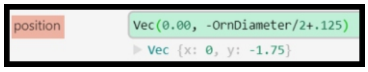
17. Click once in the Y origin field so it looks like below Vec(0,0)

18. Change the second 0 to *0.5* so the string reads *Vec(0,0.5)*



19. Click once in the Y position field so it looks like below - Vec(0,0)

20. Change the second 0 to *-OrnDiameter/2+0.125* so the string reads *Vec(0,-OrnDiameter/2+0.125)*

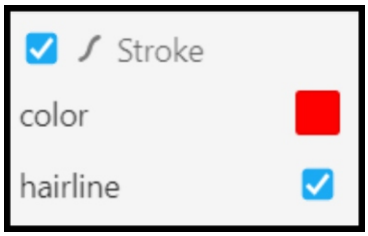


21. Select Circle 1 and Circle 3

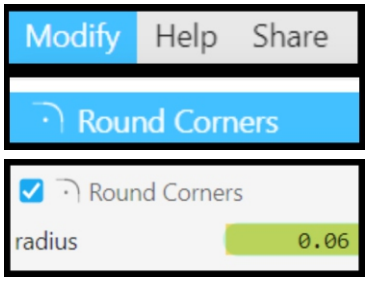
22. Select *Modify>Boolean Union*

23. Select Group 1

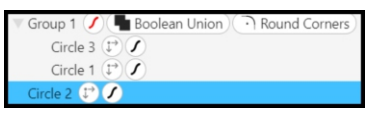
24. Check Stroke, change color to *RED* and select *hairline*



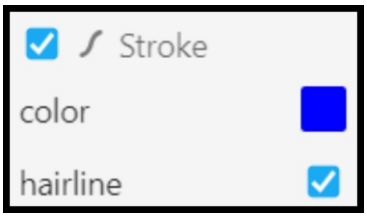
25. With Group 1 still selected, go to *Modify>Round Corners* and change the radius to *0.06*



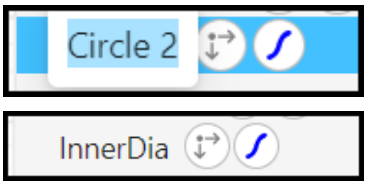
26. Select Circle 2



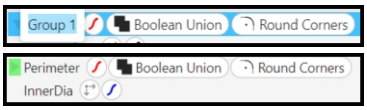
27. Check Stroke, change color to BLUE and select *hairline*



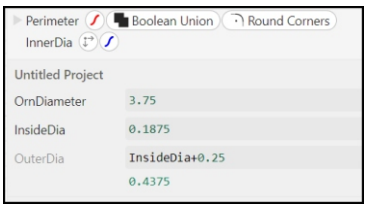
28. Double click on Circle 2 and Change it to *InnerDia*

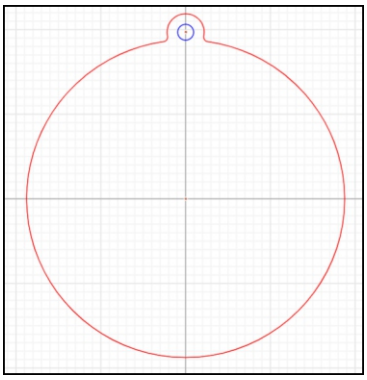


29. Double click on Group 1 and change it to *Perimeter* and collapse the arrow



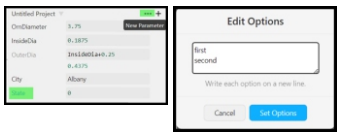
Screen should look like below



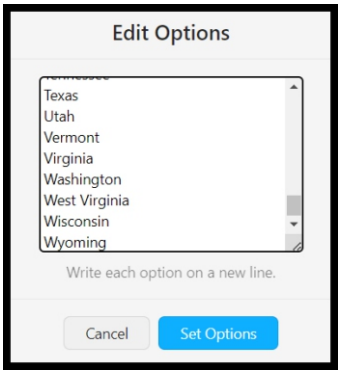


30. Create a new parameter called *City* and select the *3 dots* and change the Parameter type to *Text*. Then change Aa to *Albany*

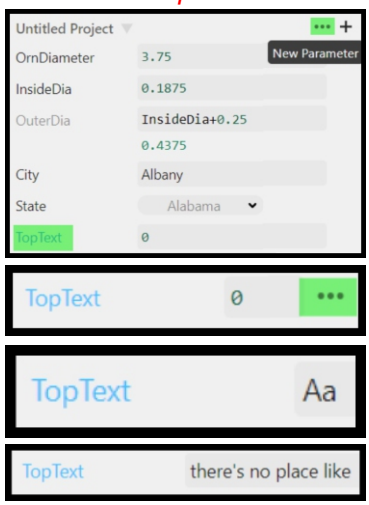
31. Create a new parameter called *State* and select the *3 dots* and change the Parameter type to *Select.* Screen should look like below.



32. This is going to be a State picklist. I found a state list on the internet. Delete the words first and second, and replace them with a state list and select *Set Options*

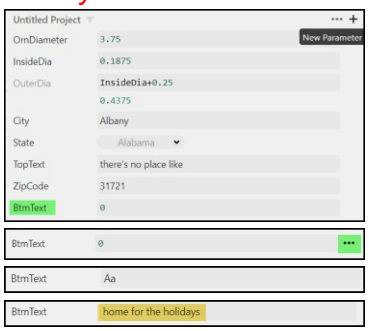


33. Create a new parameter called *TopText* and select the *3 dots* and change the Parameter type to *Text*. Then change Aa to *there's no place like*



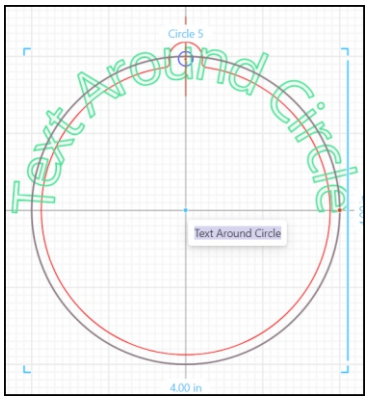
34. Create a new parameter called *ZipCode* and select the *3 dots* and change the Parameter type to *Text*. Then change Aa to *31721*

35. Create a new parameter called *BtmText* and select the 3 dots and change the Parameter type to *Text*. Then change Aa to *home for the holidays*

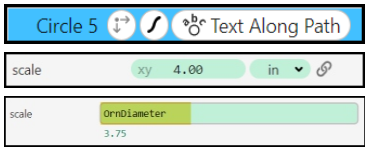


36. Drag out Text Around Circle (Top) and place it at the center of the canvas

Screen should look like below

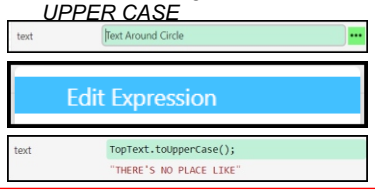


37. With Circle 5 selected, change the scale to *OrnDiameter*

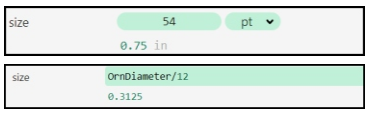


38. With Circle 5 selected, select the *3 dots* and *Edit Expression* and then change it to *TopText.toUpperCase();*

Note: This changes the text to UPPER CASE

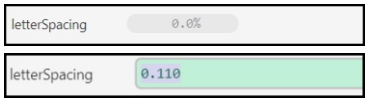


39. With Circle 5 selected, change the size to *OrnDiameter/12*

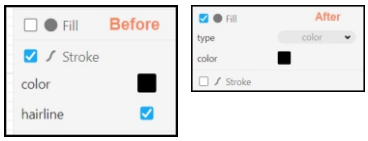


40. With Circle 5 selected, change the *verticalAlign* from *middle* to *Top*

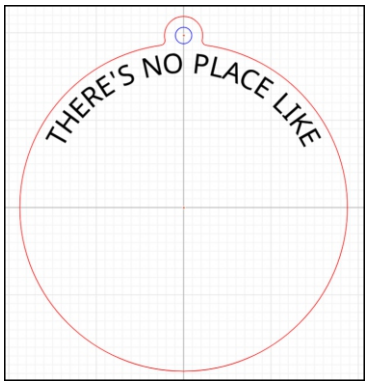
41. With Circle 5 selected, change the *letterSpacing* from 0.0% to *0.110*. It should look like 11%



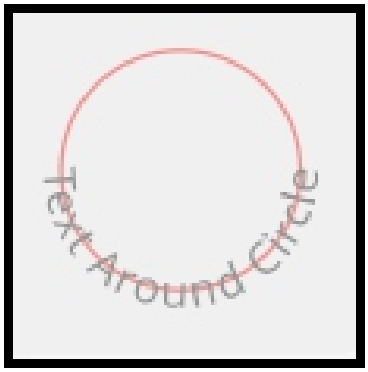
42. With Circle 5 selected, uncheck the stroke, check the fill, and change the fill to BLACK.



Screen should look like below

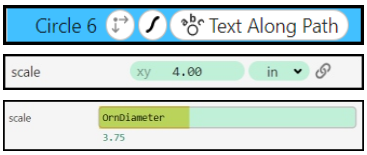


43. Drag out Text Around Circle (Bottom) and place it at the center of the canvas

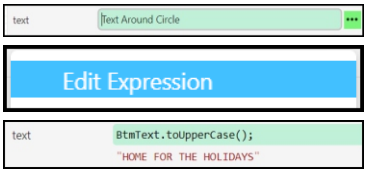


Screen should look like below

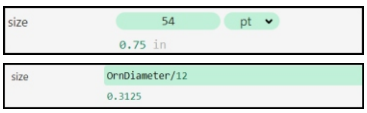
44. With Circle 6 selected, change the *scale* to *OrnDiameter*



45. With Circle 6 selected, select the 3 dots and *Edit Expression* and then change it to *BtmText.toUpperCase();*

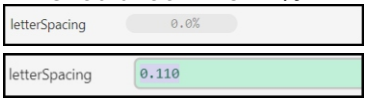


46. With Circle 6 selected, change the size to *OrnDiameter/12*

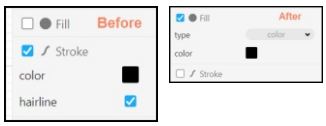


47. With Circle 6 selected, change the *verticalAlign* from *middle* to *Bottom*

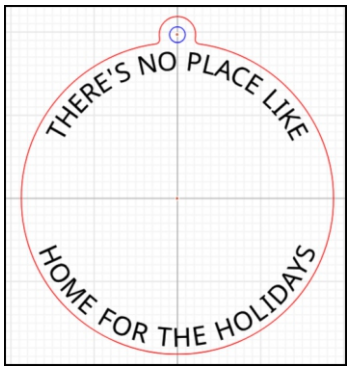
48. With Circle 6 selected, change the *letterSpacing* from 0.0% to *0.110*. It should look like 11%



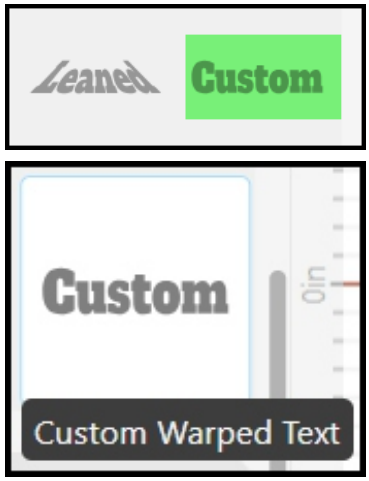
49. With Circle 6 selected, uncheck the *stroke*, check the *fill,* and change the fill to BLACK.



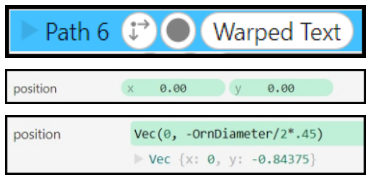
Screen should look like below



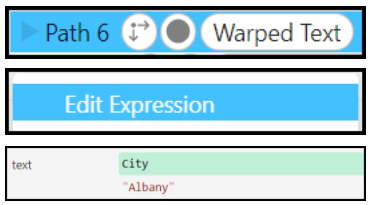
50. Select Custom Warped Text and drag it to the Canvas Origin.



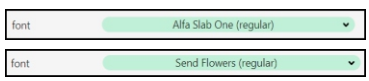
51. With Path 6 selected, change the position to *Vec(0, -OrnDiameter/2*.45)*



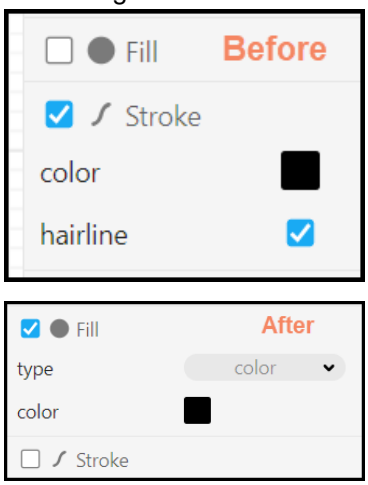
52. With Path 6 selected, select the *3 dots* and *Edit Expression* and then change it to *City*



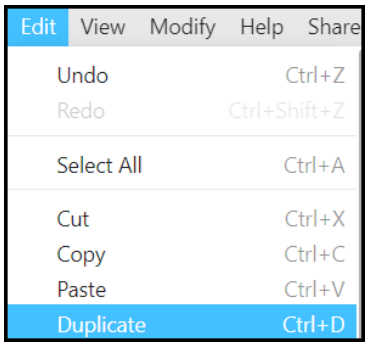
53. With Path 6 selected, change the *font* from Alpa Slab One (regular) to *Send Flowers (regular)*



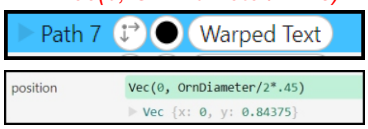
54. With Path 6 selected, uncheck the *stroke*, check the *fill,* and change the *fill* to BLACK.



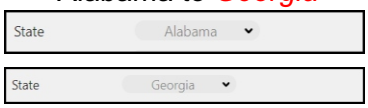
55. With Path 6 selected, select *Edit>Duplicate*



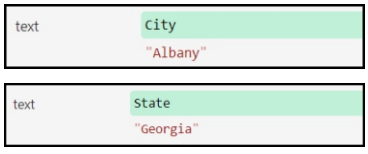
56. With Path 7 selected, change the *position* to *Vec(0, OrnDiameter/2*.45)*



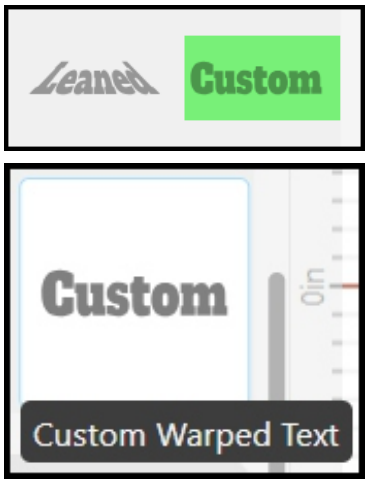
57. With Path 7 selected, change the State from Alabama to *Georgia*



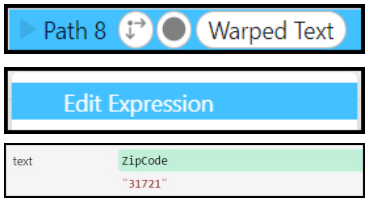
58. With Path 7 selected, change *text* from *City* to *State*



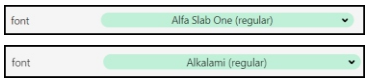
59. Select Custom Warped Text and drag it to the Canvas Origin.



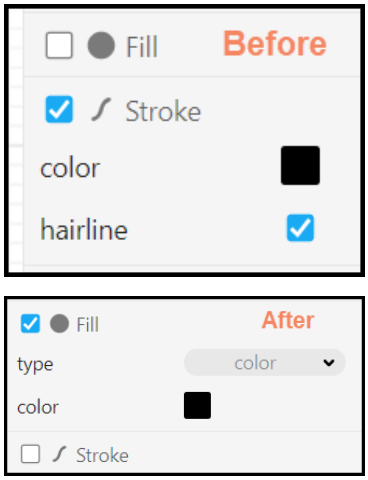
60. With Path 7 selected, select the *3 dots* and *Edit Expression* and then change text to *ZipCode*



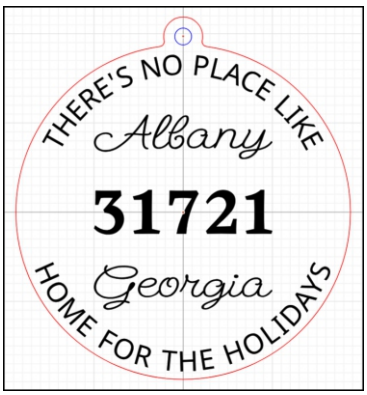
61. With Path 7 selected, change the font from *Alpa Slab One (regular* to *Alkalami (regular)*



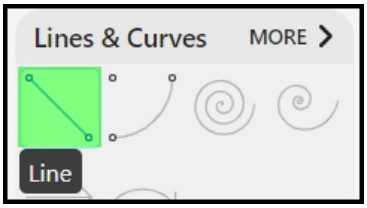
62. With Path 7 selected, uncheck the *stroke,* check the *fill,* and change the *fill* to BLACK.



Screen looks like below

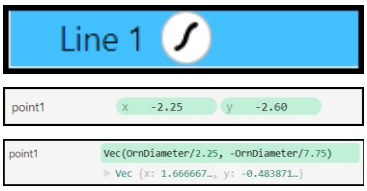


63. Select the Line, and drag it somewhere on the Canvas.



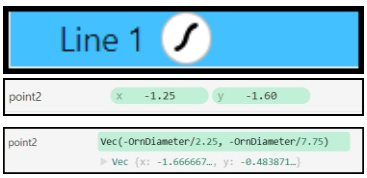
64. With Line 1 selected, change point1 to

Vec(OrnDiameter/2.25, -OrnDiameter/7.75)

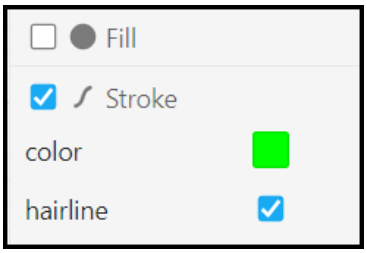


65. With Line 1 selected, change point2 to

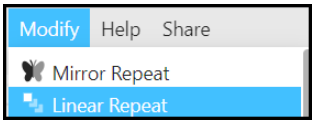
Vec(-OrnDiameter/2.25, -OrnDiameter/7.75)



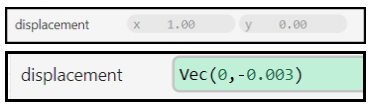
66. With Line 1 selected, change the stroke color to GREEN and hairline



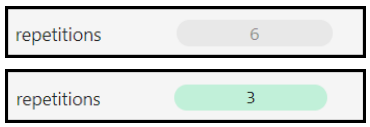
67. With Line 1 selected, select *Modify>Linear Repeat*



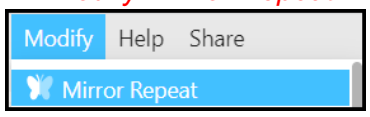
69. Change the displacement to *Vec(0,-0.003)*



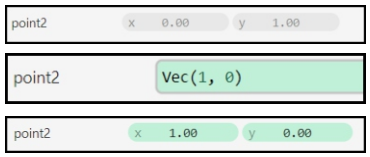
70. Change the repetitions to *3*



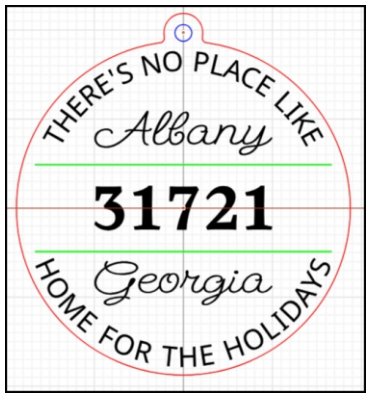
71. With Line 1 selected, select *Modify>Mirror Repeat*



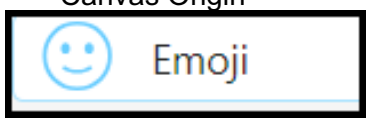
72. Change point2 to *Vec(1,0)* and should look like below



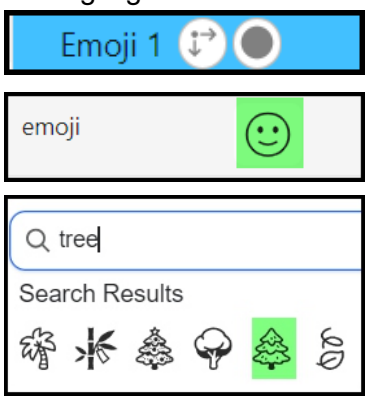
Screen looks like below



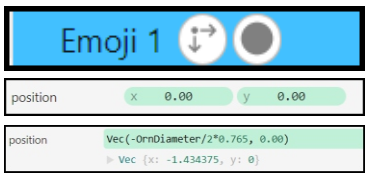
73. Drag Emoji out and place it at the Canvas Origin



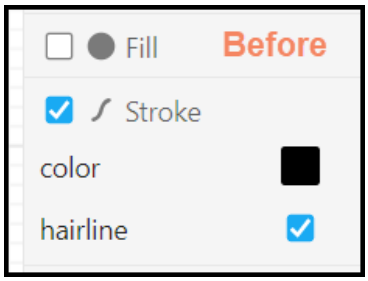
74. Select the emoji and pick the emoji you want. You can search for an emoji by keying in *Tree* in the search box and selecting the tree highlighted in GREEN

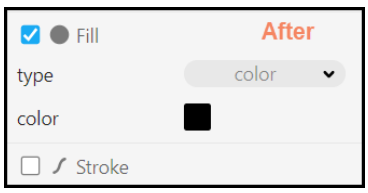


75. With Emoji 1 selected, change the *position* to *Vec(-OrnDiameter/2*0.765,0)*

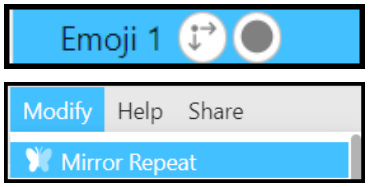


76. With Emoji 1 selected, uncheck the *stroke,* check the *fill,* and change the fill to BLACK.



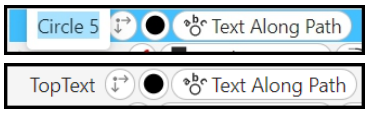


77. With Emoji 1 selected, select *Modify>Mirror Repeat*

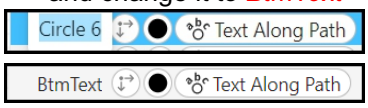


The following are housekeeping steps that will make it easier to edit if you want to make some changes.

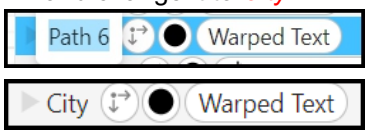
78. Double click on Circle 5 and change it to *TopText*



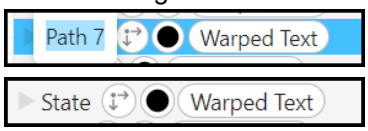
79. Double click on Circle 6 and change it to *BtmText*



80. Double click on Path 6 and change it to *City*



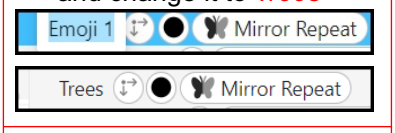
81. Double click on Path 7 and change it to *State*



82. Double click on Path 8 and change it to *ZipCode*

83. Double click on Line 1 and change it to *DividingLines*

84. Double click on Emoji 1 and change it to *Trees*



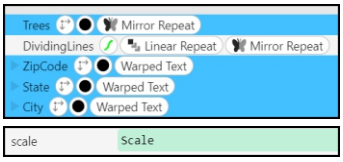
After building the ornament using 3.75" diameter as a reference, I noticed that the text and emojis didn't scale well if I reduced the diameter of the ornament.

I came up with a Scale parameter that seems to work. See next page.

85. Create a new parameter called ***Scale*** and set the value to *OrnDiameter*.53334/2*

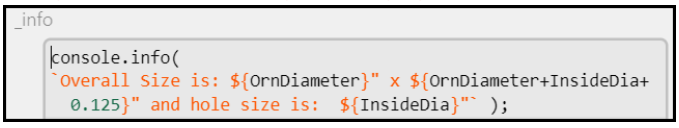
86. Set the scale for Trees, ZipCode, State, and City to *Scale*

86. Set the scale for each: *Trees, ZipCode, State, and City* to *Scale*



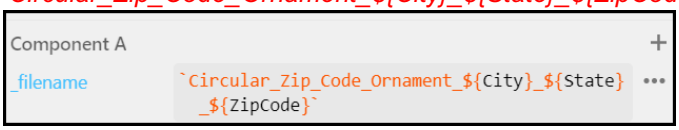
87. Create a new parameter called ***_info*** and set the value to

console.info(
`Overall Size is: ${OrnDiameter}" x ${OrnDiameter+InsideDia+ 0.125}" and hole size is: ${InsideDia}"`);



88. Create a new parameter called ***_filename*** and under Component A and set it to

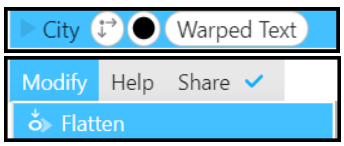
`Circular_Zip_Code_Ornament_${City}_${State}_${ZipCode}`



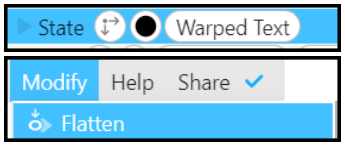
89. Rename the project to *Circular_Zip_Code_Christmas_Ornament*

Found out that City and State need to be flattened.

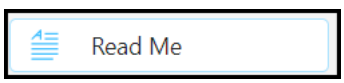
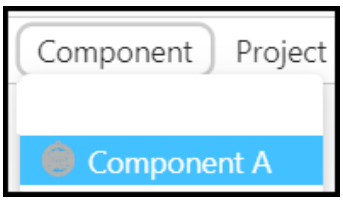
91. Select City and then *Modify>Flatten*



92. Select State and then *Modify>Flatten*



93. Select Read Me



94. Click in field and add Component A