I think Kate’s doughnut is a work of genius and I wanted to recreate the idea in an editable form that can be generalized for all types of systems, for exampe an individual business or any other thing. I have written a program in FMS Logo, which is available for free here: <https://fmslogo.sourceforge.io/> The program I wrote is listed below with line numbers and notes to the right (you only need copy and enter the program instructions in the left column). You can change the radius of the CIRCLE commands (in FMSLogo use 125 units per inch). You can edit the colors using RGB codes as well as the divisions for the inner and outer rings by changing the number of repetitions on lines 19 and 29, the degrees as parts of 360o on lines 21 and 30 (This image has 5 divisions of 72 degrees, but you can use whatever you like). After running the FMS Logo program,I save the basic doughnut as a .bmp file, place it in a Word document and add the lables with the Insert -> Shapes menus. I am licensing the image under CC BY SA Larry Marquardt feel free to modify and use as you see fit, but please provide attribution.

Have fun, and I hope it’s useful.

|  |  |
| --- | --- |
| CIRCLE 300SETFLOODCOLOR [255 128 0]FILLCIRCLE 225SETFLOODCOLOR [255 0 0]FILLCIRCLE 215SETFLOODCOLOR [0 204 0]FILL CIRCLE 140SETFLOODCOLOR [255 0 0]FILL  CIRCLE 130SETFLOODCOLOR [0 128 255]FILL CIRCLE 55SETFLOODCOLOR [255 255 255]FILLREPEAT 5 [PURT REPCOUNT \* 72FORWARD 55 SETPENSIZE [10 10]SETPENCOLOR [255 255 255]PDFORWARD 75PUHOME]REPEAT 5 [PURT REPCOUNT \* 72FORWARD 225 SETPENSIZE [10 10]SETPENCOLOR [255 255 255]PDFORWARD 75PUHOME] | 1. Draw a circle filled with
2. Set flood color RGB code
3. Fill the circle with the color
4. Draw a circle filled with
5. Set flood color RGB code
6. Fill the circle with the color
7. Draw a circle filled with
8. Set flood color RGB code
9. Fill the circle with the color
10. Draw a circle filled with
11. Set flood color RGB code
12. Fill the circle with the color
13. Draw a circle filled with
14. Set flood color RGB code
15. Fill the circle with the color
16. Draw a circle filled with
17. Set flood color RGB code
18. Fill the circle with the color
19. Routine that repeats n times
20. Stop drawing
21. Count n and set to fraction of 360o (72)
22. Move forward (don’t change)
23. Set line width
24. Set line color
25. Start drawing
26. Move forward (don’t change)
27. Stop drawing
28. Center and repeat n times
29. Routine that repeats n times
30. Stop drawing
31. Count n and set to fraction of 360o (72)
32. Move forward (don’t change)
33. Set line width
34. Set line color
35. Start drawing
36. Move forward (don’t change)
37. Stop drawing
38. Center and repeat n times
 |



Independent systems (green area is the system per se).



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Systems (green area) outputs (outer orange) begin to interact and be affected by each other.



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Systems (green area) are fully interactive with external effects (outer orange) affecting each other’s inputs (blue). Cooperation or competition.



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Systems (green area) competing for inputs affecting each other’s inputs (blue area).



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Pair of systems (lighter shades) interacting to reproduce.



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