



3D-Printed Electronic Snowflakes using WS2811 LED Strip



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[VIEW IN BROWSER](#)

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Summary

Animated 3D-printed electronic snowflakes using WS2811 LED strips running on a 5-volt DC circuit powered by an Arduino



4.17 hrs



2 pcs



0.30 mm



0.40 mm



PET



70 g



Prusa
MK3/S/S+

[Seasonal designs](#) > [Winter & Christmas & New Year's](#)

Tags: [snowflake](#) [arduino](#) [ws2812](#) [ws2811](#) [arduinouno](#)
[snowflaketreeornament](#)

Instructions

are in the PDF document and in the YouTube video

Printing the branches

The snowflake consists of SIX branches. A branch is contained in the Snowflake.stl STL model and in the Snowflake.3mf 3MF file. Print SIX

copies of the branch. I would highly recommend using PETG rather than PLA as the snowflake will last longer if you use it outside, as I do.

Printing the center

I added the “Snowflake Center.stl” file to Printables. However, you can replace the center by a standard PVC pipe, with an outside diameter of 70 millimeters, if you have one. PVC might be sturdier than PETG.

Assembling the snowflake

You need 6 M5x18 bolts and nuts, or 6 #10 24-TPI 3/4 bolts and nuts.

Code for the Arduino

The code is in the PDF document

Model files



snowflake.3mf



snowflake-center.stl



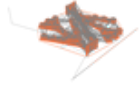
snowflake.stl

Print files



snowflake-04n-03mm-petg-mk4-3h25m.gcode

⊗ PET ⊗ 0.40 mm ≡ 0.30 mm ⌚ 3.42 hrs ⚖ 68 g 🖨 Prusa MK4



snowflake-03mm-petg-mk3s-4h10m.gcode

🌀 PET 🌀 0.40 mm 🌀 0.30 mm 🕒 4.17 hrs 📊 70 g
🖨 Prusa MK3S/S+ & MMU2S/3

Other files



snowflakesanimated.ino

📄 This is the C++ code



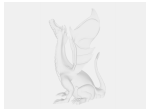
ws2812.pdf

📄 This is the datasheet for the components. Information only. Not needed.



2023-holiday-snowflakes.pdf

📄 Instructions. READ THIS FIRST.



ws2811.pdf

📄 This is the datasheet for the components. Information only. Not needed.

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