

LED Snowflake Project:

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ABSTRACT OF CONCEPT:

This project will consist of forming a snowflake out of acrylic. I will attach white, green and red LEDs on this snowflake. I will also attach a temperature sensor to a breadboard connected to an arduino on the snowflake that will activate at various temperatures. At 33 degrees F the temperature sensor will activate the White LEDs. At 20-25 degrees F the temperature sensor will activate all the LEDs and blink in a specific pattern. At 10 degrees F the temperature sensor will activate all the LEDs with an even more elaborate pattern. By Snell's law, the sides of the acrylic will light up in different colors because of the LED's flashing their light into the acrylic.

PARTS REQUIRED:

6 white LEDs

4 green LEDs

2 red LEDs

1 digital temp sensor

1 acrylic plate

1 arduino uno

Various connecting wires