Science is awesome GHOST SCOPE







<u>Materials Required</u>

Name	Qty
MDF Parts	1
Cell	1
Washer	4
RGB Sktech Pen	3
Bolt	2



<u>Materials Required</u>

Name	Qty
Binder Clip	1
Multi Colour LED	1
Foam Cell Holder	1
Extra Black wire	1
Nut	2
Template	1

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Overview

"Embark on a spectral adventure with the Ghost Scope RGB Color Experiment! Witness how RGB LEDs blend to create an array of colors in this illuminating exploration. Discover the magic of light and color mixing in a fun, hands-on experience."





Engineering challenge

Innovate the Ghost Scope RGB Color System! Enhance LED arrangements for optimal color blending. Experiment with circuit designs to achieve dynamic spectral effects. Encourage creativity in crafting mesmerizing light displays. Unleash your engineering skills!



Procedure

Carefully use scissors to cut along the outer edge of the ghost template as shown







Using an RGB sketch pen, carefully trace the given fish shape template, making sure to follow the outlines accurately; (if you'd like, you can also repeat the same procedure for the Joker template.)





Fold the template along the indicated white line.



Fold the template to match the shape shown.





Apply strips of cello tape to secure the folded ghost template as shown



Using scissors, carefully cut along the indicated arrow mark to shape the template as shown.







Carefully insert the LED wires into the MDF hole marked by the arrow as shown



Insert the LED wires into the MDF hole indicated by the arrow, then gently pull the LED wire through as demonstrated.









Rear view

Attach the washer to both the LED wires and the additional black wire





Attach the bolt to the LED black wire and the additional black wire as shown





Place the bolt into the MDF hole as demonstrated



Turn the nut to make the bolt tighter as shown



Attach all the side MDF parts to the base part as shown



Insert the cell into cell holder and connect led red wire to positive side of cell and extra black wire to negative side of cell as shown





Place the foam cell holder inside the mdf as shown





Attach the binder clip to bolt to turn on LED





Insert the ghost template into MDF as shown



YOUR GHOST SCOPE IS READY



When you put your eye in the eye-shaped design, you'll see a cool illusion



HOW IT WORKS?

"When viewing an RGB color image under RGB (Red, Green, Blue) LEDs, the emitted light spectra match the primary colors used in the image. Red LEDs emit wavelengths in the range of 620-750 nm, green LEDs emit in the range of 495-570 nm, and blue LEDs emit in the range of 450-495 nm. These wavelengths correspond to the respective color channels in the image. As a result, the image's colors are accurately reproduced, creating a visually accurate representation

