

# SSSSS: Seventies-Style Sight and Sound System

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# Introduction



**Treat Your Eyes to  
a "Color Concert"**

**Give Your Party  
The "Disco-Look"**

**10<sup>95</sup>**      **29<sup>95</sup>**

**Razzle Dazzle.** Random star-like bursts of red, green, blue & yellow—an infinite variety of patterns. Prismatic lens. Fits against wall for 180° viewing. 18x5 $\frac{1}{2}$ x6". For 120 VAC. U.L. listed. 42-3002 ..... **10.95**

**3-Channel Color Organ.** Connect to any speaker and see music translated into flashing colors behind a "starburst" lens. Walnut grained vinyl veneer. 18x11 $\frac{1}{2}$ x5". For 120 VAC. U.L. listed. 42-3001 ..... **29.95**

Figure: A Radio Shack advertisement for a color organ.

# Block diagram

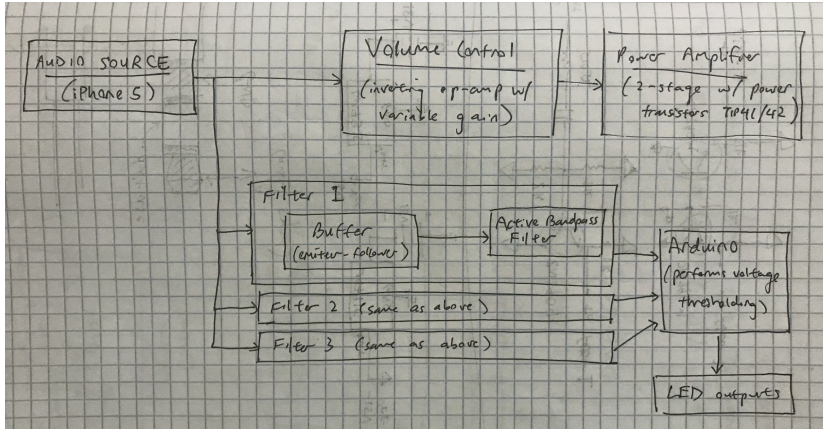


Figure: Block diagram of the overall color organ

# Demonstrating the bandpass filter

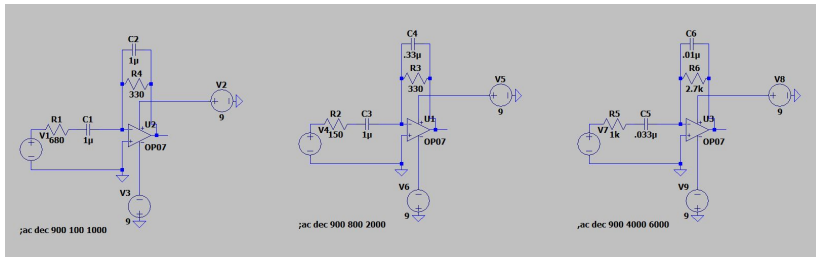


Figure: Schematic of the three filters we created.

# Demonstrating the speaker circuit

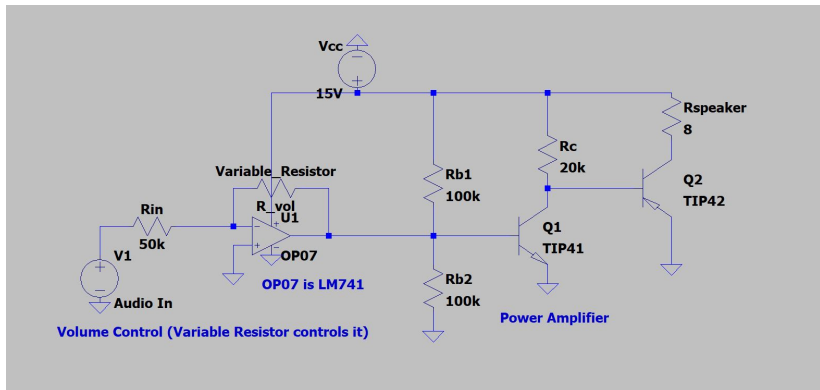


Figure: Left: a regular inverting amplifier for volume control. Right: a Sziklai pair using power transistors to drive the 8  $\Omega$  speaker.

# Difficulties

- ▶ Generating enough power for speaker (but not too much)
- ▶ Choosing capacitor/resistor values for filters with given parts
- ▶ Preventing major components from affecting each other

# Conclusions and next steps

- ▶ Was harder than we expected (when we put the pieces together)
- ▶ Figure out why third filter doesn't work
- ▶ Make this work better for all amplitudes
- ▶ Also implement thresholding in analog (comparator)

Thanks for watching