

STREAMLINE MODULE

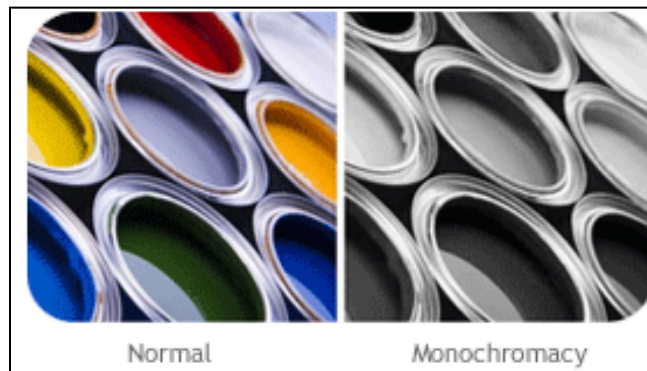


Figure #1. Monochromatism

Monochromatism

also known as achromatopsia, is a rare type of color blindness where an individual has only one functioning cone cell in their eyes, resulting in the inability to see any colors at all. (Facts & Figures, 2023)

Ref: Facts & Figures, (April 1, 2023). *Monochromatism Vs Dichromatism Vs Anomalous Trichromatism*. Retrieved from <https://thefactsandfigures.com/monochromatism-dichromatism-trichromatism/>

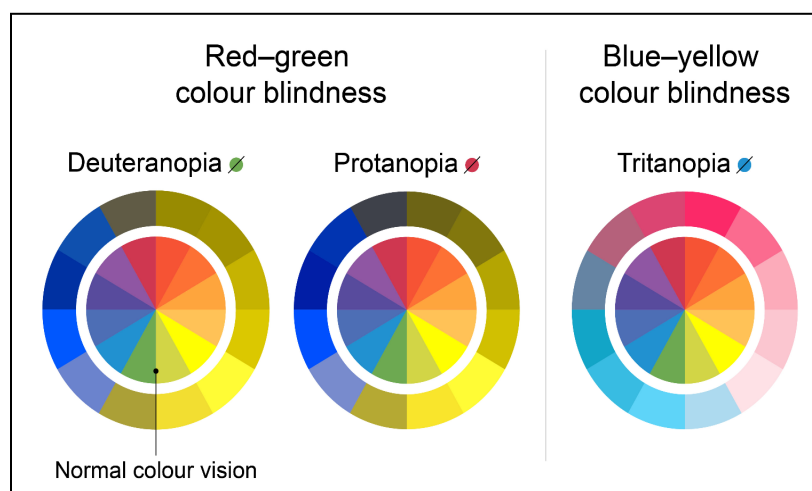


Figure #2. Dichromatism and its type

Dichromatism

This is a type of color blindness in which an individual only has two types of functioning cone cells in their eyes, rather than the customary three. We identify certain parts of the light spectrum 'red,' 'green,' or 'blue' for convenience. Because the parts of the light spectrum that 'red' and 'green' cone cells would typically receive overlap extensively, people with red and green color blindness have many comparable color confusions. This is why red and green color vision deficits are frequently referred to as red/green color blindness, and why people with red and green deficiencies frequently experience the world in a similar fashion.(Colour Blind Awareness, 2023)

In addition, there are three types of dichromatism. These are: Tritanopia , Deuteranopia , Protanopia.

Tritanopia - is a blindness to blue, usually with the inability to distinguish between blue and yellow that occurs when blue cones are absent; and tritanomaly (reduced sensitivity to blue), which arises from the abnormal function of blue cones.

Deuteranopia - is a blindness to green. This is a state in which the red cones are absent leaving only the cones that absorb blue and green light. Wherein green cones are lacking and blue and red cones are functional. Some persons experience anomalous dichromatic conditions, which involve only minor reductions or weaknesses in color sensitivity.

Protanopia - is a blindness to red. This is also called a red deficiency that makes it easier to confuse black and red, dark browns with dark greens, oranges and reds, and some blue tones with reds, purples, and dark pinks.

Ref: Colour Blind Awareness, (2023). *Types of Color Blindness*. Retrieved from <https://www.colourblindawareness.org/colour-blindness/types-of-colour-blindness/#:~:text=People%20with%20dichromatic%20colour%20vision,t%20be%20perceived%20at%20all.>

Ref: The Editors of Encyclopedia Britannica, (May 18, 2023). *Colour Blindness Medical Condition*. Retrieved from <https://www.britannica.com/science/color-blindness#ref246358>

Ref: Pesko, P. (July 7, 2020). *Different Types of Color Blindness*. Retrieved from <https://pilestone.com/blogs/news/different-types-of-color-blindness>