Light Spectrums
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Physics of infrared light and ultra-violate light (like infra/ultra sound, just in visual terms now). How do images change between infrared spectrum, visible spectrum, and ultraviolate spectrum? Why do our eyes only perceive visible light? Do other animals perceive other spectrums (dogs/cats) or only l et in more light to see in the dark? Is it possible that some images can ONLY be seen in the infrared and ultra violate light that we cannot see? Tests could include having light in different shapes in infrared/ultraviolet spectrums and having people try and see the shapes, then seeing them under different filters

The spectrum of electromagnetic radiation extends from gamma rays to radio waves. The section of the electromagnetic spectrum between $10^{-8}$ cm and $10^{-2}$ cm is termed light. Only a small portion of the segment of the spectrum (ranging from 400nm-750nm) is visible to the human eye. Below the range is ultraviolet and above is infrared. Neither is visible to any mammal. What humans can see depends on wavelengths reaching the visual cells of the eye, are then absorbed by the visual pigments. Dogs and cats may see in darker situations due to their large number of "rods" in their retinas. Rods detect light intensity while "cones" decipher color. Cats and dogs have lower numbers of cones, and therefore do not see the range of color that humans are able to see. [1]

No tests could ever be conducted for humans to see in these spectrums because mammals do not have the physiological capability to see above or below the visible light spectrum.

1. Eckert, Radall and Augustine. 1988. Animal Physiology, Mechanisms and Adaptations, 3rd edition pages 205-213