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## **Visual Cortex**

The visual cortex<sup>1)</sup> is a part of the brain that is responsible for processing visual information. It is located in the back of the brain, in an area called the occipital lobe.

The visual cortex is divided into several different areas, each of which is responsible for processing different types of visual information. Some of the main areas of the visual cortex include:

- The primary visual cortex (V1): This is the first area of the brain to receive input from the retina. It is responsible for processing basic visual features such as color, contrast, and form.
- The secondary visual cortex (V2): This area is responsible for processing more complex visual information, such as the relationships between objects in a scene.
- The tertiary visual cortex (V3): This area is involved in processing information about the spatial relationships between objects in a scene and their distance from the viewer.
- The quaternary visual cortex (V4): This area is involved in processing information about color and form in more complex scenes.
- V5 is also known as the middle temporal area (MT) and is involved in the processing of visual information related to motion. It is particularly important for detecting and tracking moving objects.
- **V6** is involved in the processing of visual information related to three-dimensional space and depth perception. It is also involved in the control of eye movements.
- **V7** is involved in the processing of visual information related to surface orientation and the perception of shape.

The visual cortex is essential for our ability to see and understand the world around us. It receives input from the retina and processes this information to create a coherent visual experience. This processed information is then passed on to other areas of the brain for further processing and integration with other senses.

## **Visual Fields**

The visual field is the area that can be seen by an eye (or both eyes) while the gaze is fixed in one position. It is the portion of the environment that is visible to an individual at any given moment.

The visual field can be divided into two parts: the central visual field and the peripheral visual field. The central visual field is the area of the visual field that is directly in front of the viewer and is the part of the visual field that is used for most detailed tasks, such as reading and writing. The peripheral visual field is the area of the visual field that is outside of the central visual field and is used for detecting movement and perceiving the overall layout of the environment.

The visual field is an important aspect of vision and is used to gather information about the environment. It is also important for maintaining balance and orientation in space. Visual field defects can be caused by a variety of factors, including damage to the eye or the visual pathways in the brain, and can lead to visual impairments.

1) https://en.wikipedia.org/wiki/[[https://en.wikipedia.org/wiki/Visual\_cortex|Wikipedia]]

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