# Brain Chip

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**In news–** Elon Musk's brain-implant company Neuralink is facing a federal probe in the US after over 1,500 animals were killed in testing since 2018.

## What are brain implants?

- Brain implants, often referred to as neural implants, are technological devices that connect directly to a biological subject's brain – usually placed on the surface of the brain, or attached to the brain's cortex.
- A common purpose of modern brain implants and the focus of much current research is establishing a biomedical prosthesis circumventing areas in the brain that have become dysfunctional after a stroke or other head injuries.
- This includes sensory substitution, e.g., in vision. Other brain implants are used in animal experiments simply to record brain activity for scientific reasons.
- Some brain implants involve creating interfaces between neural systems and computer chips.

## About Neuralink

- Founded in 2016 by Musk and a group of engineers, Neuralink is building a brain chip interface that can be implanted within the skull, which it says could eventually help disabled patients to move and communicate again, and also restore vision.
- Neuralink's device has a chip that processes and transmits neural signals that could be transmitted to devices like a computer or a phone.
- The company hopes that a person would potentially be able to control a mouse, keyboard or other computer functions like text messaging with their thoughts.

- Neuralink also believes its device will eventually be able to restore neural activity inside the body, allowing those with spinal cord injuries to move limbs. The San Francisco and Austin-based company also aspires to cure neurological conditions such as Alzheimer’s and dementia.
- Neuralink has yet to secure U.S. regulatory approval to move to human trials — unlike competitor Synchron, which has less ambitious goals for its medical advances.