

Robotic Prosthetic Limbs

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Purpose of Study

The purpose of this study is to examine the recent discoveries and innovations in the field of robotic prosthetic limbs.

Introduction

Are you aware of the functions of Prosthetic Limbs? If you don't know, we can explain what prosthetic limbs are. People who were born without or lost a body part like an arm or a leg can have a prosthetic limb to replace it. Prosthetic limbs operate by electrical signals sent from the brain to muscles in the arm or leg that tells it how to stimulate. We will discuss the features of a robotic prosthetic limb.

Public Perception

When you receive a prosthetic limb, it replaces a body part. Prosthetic limbs are a type of implant. Most people know that implants are inserted in a person's body to fix a body part or enhance a body part. Implants are usually done using surgery. The opposite of implanting a prosthetic limb is an amputation. An amputation is the action of surgically cutting off a limb.

Discoveries and Innovations



The Johns Hopkins Applied Physics lab has developed a robotic prosthetic arm that is capable of being controlled by thought. It also has a sense of touch. This invention could change the lives of people who have lost their hands or arms due to an accident or an illness. The prosthetic limb implant procedure works by transplanting nerves in the hand, that allow us to feel with touching, to the arm. The prosthetic then attaches to the arm and gives the nerves messages from the environment. The prosthetic can use brain signals to control direction and movements of the limb. This prosthetic limb has the ability to feel senses and identify the body part they are being touched with.

Data

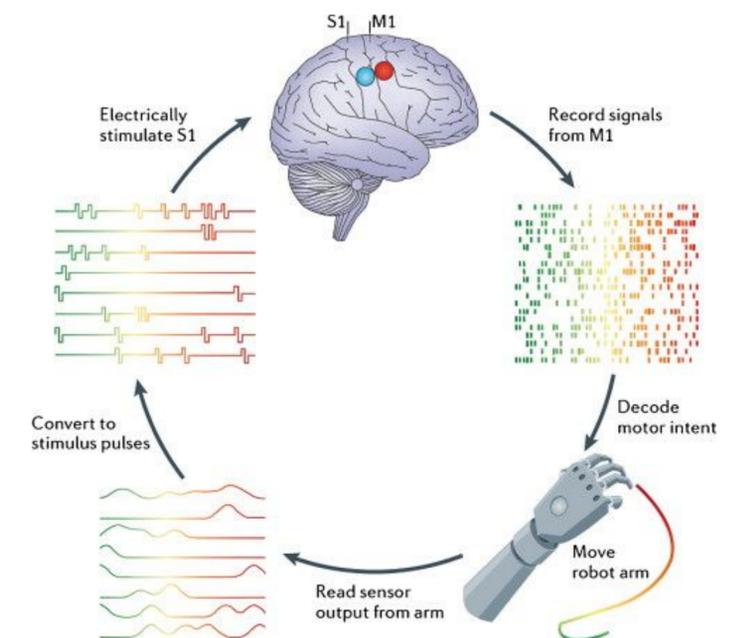


Figure 1. How a robotic arm works.

Conclusion

We came a long way since Captain Hook. The first prosthetic limbs were made of wood and then made with plastic. Today, the limbs are made of advanced technology that works way better. They are almost like a robot machine and its way more comfortable.

References

jhuapl.edu
smithsonianmag.com