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Wireless Myoelectric Sensor Minimization and Packaging

Ásbjörg Einarsdóttir, University of Iceland and Pedro Irazoqui Dr., Purdue University

Many people suffer from amputation, which affects their lives severely by disabling them from doing chores in their daily life as well as chores related to work and leisure. For the last years, prosthetics' development has been fast and the devices that are being used now are a miracle compared to what has been used before. But still, the battle is not over yet. Although scientists have techniques and devices to use nerve residues from the amputated limb to control the prosthetic, smaller devices that can detect the signals from those nerves better need to be developed. In this research project the main focus is to make a device that can detect those signals better than the devices that have already been made and minimize the size of it. To do that, constant development, diminishing, fabrication and testing (by implanting them in animals) of new devices needs to be performed. The findings of this research are that the device that is being worked on can be simultaneously wirelessly powered and it can receive live animal data from inside of the animal. Although that is a great achievement on its own, further research needs to be done to improve the device more. If development continues at this rate, the lives of people that have lost a limb will soon become so much better.