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## Ossur's AI Prosthetic Solutions

*The artificial foot that you control with your mind*

Ossur, an Iceland-based developer and supplier of orthopedic devices, has just showcased its latest invention - the Proprio Foot, the world's first motor-powered and intelligent foot that thinks for itself, functioning almost naturally, as a normal human foot. For an amputee, this means more balanced and symmetric movements, but also an ability to stand up or sit down naturally from a chair. But it also joins two other prosthetics which utilize Ossur's Bionic Technology platform. One is the Rheo Knee, the award-winning system that automatically adapts to the wearer's walking style and environment, until it reaches optimal efficiency. The other is the Power Knee, the world's first motor-powered knee. This advanced bionic prosthesis replaces true muscle activity, thus making it possible for an amputee to go up stairs and incline foot-over-foot. "A case in point is artificial intelligence (AI), a branch of computer science dealing with intelligent behavior, learning and adaptation in machines. Ossur uses highly advanced AI to increase the functionality of its prostheses to reduce the user's mental and physical effort, as well as the ensuing stress on other body parts following an amputation. The results are prostheses that actually do some thinking and can deal with day-to-day events like a change of shoes or heavy lifting," explained the company. Ossur representatives presented the future to come technologies for lower limb prosthetics such as osseointegration, the science of implanting man-made, load bearing anchoring mechanisms directly into the living bone, or neurosensing, when a prosthetic device is connected to the human neurological system enabling the user to regain voluntary control over the prosthesis at a thinking level, instead of having to manipulate the prosthetic function solely by means of joint mobility and muscular activity.