

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ  
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ  
КАФЕДРА ІНОЗЕМНИХ МОВ  
ЛІНГВІСТИЧНИЙ НАВЧАЛЬНО-МЕТОДИЧНИЙ  
ЦЕНТР**

**МАТЕРІАЛИ  
X ВСЕУКРАЇНСЬКОЇ НАУКОВО-ПРАКТИЧНОЇ  
КОНФЕРЕНЦІЇ СТУДЕНТІВ, АСПІРАНТІВ ТА  
ВИКЛАДАЧІВ  
ЛІНГВІСТИЧНОГО НАВЧАЛЬНО-МЕТОДИЧНОГО  
ЦЕНТРУ КАФЕДРИ ІНОЗЕМНИХ МОВ**

**“WITH FOREIGN LANGUAGES TO MUTUAL  
UNDERSTANDING, BETTER TECHNOLOGIES AND  
ECOLOGICALLY SAFER ENVIRONMENT”**

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## PROSTHETIC NEWS

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I am sure all of us have heard about prosthetics. It is an artificial device to replace or augment a missing or impaired part of the body. And today I am going to tell you about creations in this area.

A generation ago, getting a prosthetic limb fitted usually amounted to a having a heavy, nearly useless hunk of plastic and metal tacked onto your body. But bionic hands just how quickly that's all changing. Among the hand's more impressive features are its ductile wrist and fingers.

Another example is cutting-edge prosthesis. They are amazing, but they lack one very important feature: a sense of touch. Now a research team from Stanford University has developed artificial skin that can sense force exerted by objects—and then transmit those sensory signals to brain cells.

A Japanese robot-maker showed off suits that a wearer can control just by thinking, as it said it was linking up with an industrial city promoting innovation.

And now, I will show you some especial creations in prosthetics.

One man lost part of his right arm in a freak accident, but he didn't want that to derail his dream of becoming a professional drummer. So he built a makeshift drumming device for his arm out of a brace and some springs. But a Georgia Institute of Technology engineer wanted to take things to the next level, by building Barnes robotic arm that would allow him to play just as well, or better, than any drummer.

There is a new 3D-Printed Hand, which could serve as scaffold for living tissue. The new artificial hand design has potential application in humanoid robotics as well as limb prosthetics. But even more intriguingly, the researchers suggest that — together with advances in neuroprosthetics and skin grafting — the design could be used as 3-D scaffolding for actual limb regeneration.

An adorable Husky named Derby was born with malformed front limbs. Luckily he came into the foster care of Tara Anderson, an employee of 3D Systems based in Rock Hill, S.C. The company specializes in design-to-manufacturing solutions for 3D printing and they decided to come up with a solution for Derby. Together, they created two prosthetic devices that conformed to Derby's forelegs.