Next generation robotic legs for when the going gets rough (w/ Video)

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Horses and other animals inspire new designs for smarter, faster, more agile robotic legs.

One of the major challenges in robotics is designing robots that can move over uneven, loose or unexpected terrain.

With support from the National Science Foundation (NSF), computer engineer Luther Palmer and his team at the Biomorphic Robotics Lab at

the University of South Florida are designing computer simulation models for the next generation of robotic legs, and then building them in the lab. The team studies the biomechanics of animals adept at running on rough ground, such as horses, to program the algorithms that power computer simulations.

Palmer sees broad applications for smarter, more agile robotic legs, including military robots that can walk alongside soldiers to carry heavy loads, space-faring robots that run like horses over the surface of Mars, and search-and-rescue robots that can move through a debris field looking for survivors.

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