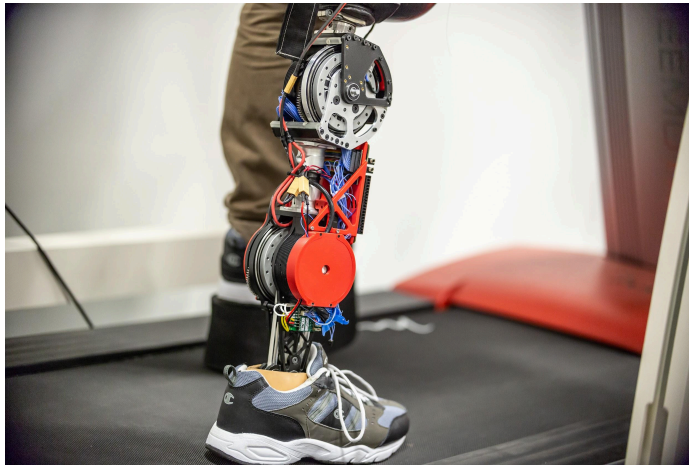




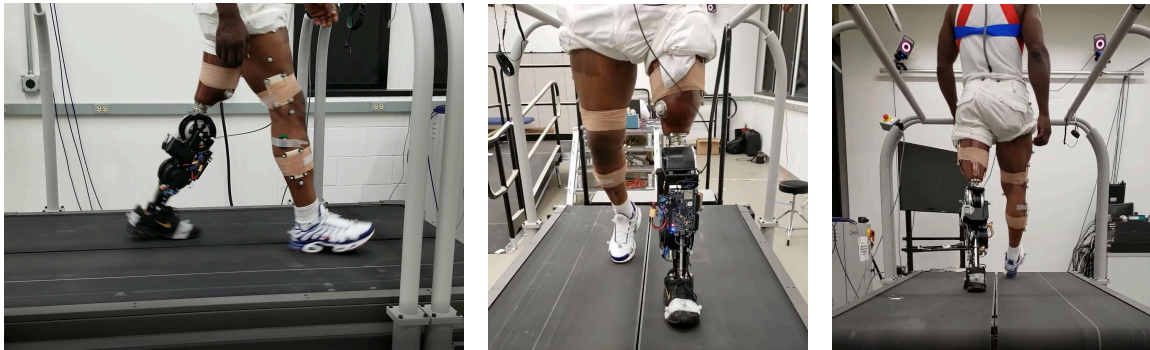
[Image link](#)

A student tests the robotic leg at the University of Texas at Dallas. The strong motors powering the knee and ankle can propel the user's body while allowing the knee to swing freely, with regenerative braking to extend battery life. Credit: University of Texas at Dallas.



[Image link](#)

The powerful motors mean that fewer gears are needed to generate torques as strong as human legs produce for activities like standing up and climbing stairs. With fewer gears, Gregg's team was able to implement a free-swinging knee and regenerative braking to help the leg go all day on a single charge. Credit: Locomotor Control Systems Laboratory, University of Michigan.



[Side view](#) | [Front view](#) | [Back view](#)

An amputee tests the leg at the University of Texas at Dallas. The free-swinging knee provides a more natural gait, while the regenerative braking system enables the leg to take twice the number of steps a user would typically need in a day, on a single charge. Credit: Locomotor Control Systems Laboratory, University of Michigan.