# Innovative wireless bionic arms empower teenager with advanced muscle control



In a remarkable demonstration of cutting-edge prosthetic technology, 19-year-old Tilly from Bath has become a living testament to the advances in wireless bionic limbs. Having lost her hands to meningitis during infancy, Tilly now wears the world's most advanced wireless bionic arms, described as a significant leap forward in limb replacement and mobility.

Tilly recently appeared alongside Joe, the designer behind the bionic arms, on the television programme This Morning to showcase the upgraded features of the advanced prosthetics. The new model, known as the Hero Pro, represents the next level after the original Hero arm. Tilly explained, “These are the brand new Hero pro. We had the hero arm, and this is the hero arm next level upgrade, so they are pretty cool. They are still like 3d, printed, muscle-operated, but we have got all these extra capabilities now, which is really really cool.”

During the segment, Tilly demonstrated the sophisticated muscle-operated control system that allows her to manipulate the prosthetic with a high degree of precision and dexterity. She showcased how the arm responds to muscle signals to perform functions like picking up a glass from the table, emphasising the intuitive nature of the technology. She noted, “Yeah, so they are all muscle operated, I can just control it like that, can do anything I wanna do.”

When asked whether the movements were directly controlled by her mind, Tilly clarified, “I mean everything normally comes from the brain but what's really great about these is it's just these two muscle senses so it's only squeeze to close, flex to open, cycling through grip modes and even that becomes second nature.” Effectively, subtle muscle flexes in her residual limbs are detected by the sensors embedded in the prosthetics, triggering the appropriate action—a process that originates from brain signals conveyed through muscle movements.

One of the most striking features demonstrated was the wireless capability of the arms. Tilly illustrated that even when her prosthetic hand is detached, she can still control and maneuver it independently. She made her detached hand appear to crawl across the table, an action enabled by wireless connection and muscle sensor technology. This particular aspect drew widespread attention on social media, with users likening the detached moving hand to "Thing," the iconic animated hand from the Addams Family. Comments included, "Like 'Thing', from Addams Family! 😂😂😂," and another user humorously suggested, “Does it come in Halloween style or what? You could scare someone with that hand moving on its own.”

Other responses highlighted the positive impact of such technology, with a commenter stating, “This is what technology and academics are for. Helping people. It’s utterly amazing! ❤️”

Tilly’s use of these advanced bionic arms not only marks a significant milestone in prosthetic technology but also provides a glimpse into the future possibilities for individuals requiring limb replacement solutions. The demonstration of wireless, muscle-controlled prosthetics opens avenues for increased autonomy and improved quality of life for amputees, showcasing how innovation continues to break new ground in medical and assistive devices.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://www.youtube.com/watch?v=UgC7la_3IIA> - This video showcases Tilly demonstrating her advanced bionic arms on a television program, highlighting their muscle-operated control and wireless capabilities.
* <https://openbionics.com/bionic-tilly/> - Tilly's bionic journey is detailed here, including her use of the Hero Arm and her experiences with more basic prosthetic hands before upgrading to advanced models.
* <https://www.montanarightnow.com/national_news/amputee-influencer-helps-develop-world-s-most-advanced-bionic-arms/article_7ea5d853-6bc3-5e57-8d9b-88b3c56bd179.html> - This article highlights Tilly's role in developing the world's most advanced bionic arms, emphasizing the significant progress in prosthetic technology.
* [https://www.tiktok.com/@thismorning/video/7493951817617771798](https://www.tiktok.com/%40thismorning/video/7493951817617771798) - This TikTok video mentions Tilly's appearance on This Morning and showcases her wireless bionic hands, providing further context to her use of advanced prosthetics.
* <https://www.openbionics.com/> - Open Bionics' website provides information on the development and features of their bionic limbs, including the Hero Arm, which has been significant in Tilly's life.