Pat Hingos Project – Detailed view (v1)

By Bill Weis

Requirements:

1. Pat purchased a high-tech prosthetic for his left residual limb and needed help with set-up and calibration

Solution – High Level:

1. We worked with Megan from UnlimitedTomorrow.com to calibrate the True Limb prosthetic device.

Details of the Solution

1 – Calibrating the True Limb – First, some background on the company and the process they use to collect scanning data and then 3D print the socket for the residual limb.

From Unlimited Tomorrow's website



"At less than \$8,000 US, Unlimited Tomorrow's TrueLimb is the most affordable bionic arm on the market. It also offers a monthly payment plan that makes it even more affordable. And that's not all. The company's unique remote scanning + 3D printing process **may well revolutionize the entire prosthetic limb industry**."

Bionics For Everyone

<u>3D Printed Prosthetics - Prosthetic Arm Design (unlimitedtomorrow.com)</u>

They basically have a 5-step approach to produce a custom prosthetic from a remote location

- 1. There is an initial consultation with the clinical team
- 2. Next, they ship a 3D scanner to get measurements of the residual limb
- 3. Then a set of sockets are 3D printed using the data collected with the scanner and the sockets are then shipped to the customer.
- 4. Once a well fitted socket has been achieved, the True Limb product is assembled.
- 5. The final step is shipping the assembled product to the customer and performing the fine tuning/calibrating.

From Unlimited Tomorrow's FAQ webpage

"TrueLimb employs a range of 30+ sensors embedded within the socket. This 360-degree array of sensors responds to topographic changes in your residual limb, not electrical signals".

The screen shot below was captured during the calibration process and reflects muscle contraction in relation to sensors responding to those contractions.



For more information, visit <u>https://www.unlimitedtomorrow.com</u>