



If you are interested in NonSpec, please contact Nancy Saucier, Director of New Venture Development at Nancy_Saucier@uml.edu or 978-934-3212.

NonSpec

Medical Device

Status: Fundraising and Prototype Development

Engineering graduate students Jonathan DeAlderete a senior in mechanical engineering and Erin Keaney a senior in plastics engineering are the leaders of their new venture called *Nonspec*. *Nonspec* has designed prosthetic hands for children in emerging nations. This prosthetic differs from existing appliances because it was developed to be easily customizable while still being mass producible at a low cost.

Their product is an injection molded prosthetic with a ratcheting hand which allows expansion and contraction – depending upon the wearer. The linkages in the fingers and the design of the forearm are a novel approach and rated to allow double the normal lifting capacity. This is accomplished using a new approach to the design of the hand section of the prosthetic. The increased capacity is intended to make the appliance more durable and functional. Most importantly, the design allows for customization in the size of the hand and fingers. The device is designed with a child's overall wellbeing in mind. Instead of a hook (or a variation thereof) the full hand linkage provides an organic shape. The cavity of the arm components are weighted to approximate the weight of a natural arm to assist in symmetrical muscle development as the child grows. The hand design device is a natural "feel" which gives the user more autonomy. It puts less stress on the families and caretakers since it allows the wearer more independence. While the device can be provided to a child at a low cost, the prosthetic is sturdy and well made.

The New Venture Initiative is interested in this technology due to the strong engineering background of the company coupled with the low cost and extraordinarily high customizability of the device making it superior for its application over all other products on the market right now. NVI is currently working to further the commercial capability of this technology through patent filing, further research and development, and business strategy development.