

B.N.M. Institute of Technology

New Gen Innovation and Entrepreneurship Development Centre

“DESIGN, DEVELOPMENT AND FABRICATION OF 3D PRINTED PROSTHETIC ARM”

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There are two major advantages to producing prosthetic hands with 3D printers. First, it is very inexpensive. The accelerating adoption of consumer grade printers and the decrease in the price of feed stock means that replacement and upgraded parts can now be printed in many materials for only tens of dollars. Second, 3D printing allows for mass customization, a sought after quality in prosthetics. Using this technology, every hand can be designed/customized to meet specific user needs, including the size of the hand and its complexity. The size of each hand can inexpensively be modeled to match the proportions of the opposite hand. Also, some people lack the fine motor skills, experience or need or an advanced hand with many degrees of freedom and a myriad of functions. Due to the modular nature of the hand design, these users can use a simpler hand and upgrade individual components as they grow and their abilities or preferences change

