

The loss of the upper and lower body limbs is very devastating for any one. On the other hand upper body limbs loss such as hand loss from accidents, war victims and biological defect are more calamitous than losing upper body limbs, because you can find other means of transportation to move around such as (vehicle chair, hand stick and artificial legs) from that lost.. And by putting plastic hand means just putting extra weight without any use. Besides the body-powered prosthetic hands use cable and straps to the individual to mechanically action the artificial limb through muscle, shoulder and arm movement. While they are highly abiding them often sacrifice a natural appearance for moderate functionality, also, come with little bit pricey cost.

So how can we achieve this? There are many why, but one of the best way is through “Myoelectric Hand”. Even though it does not work like original hand, but it does help preform some of the very basic function. Such as better grip for opening doors, pulling out a chair, grabbing bags, cell phones and more flexible and easier to use than conventional hooks than those plastic hands.

So how it works? Since it uses a rechargeable battery and electric motors o function, the myoelectric artificial limb does not require any burdensome straps to function. Alternatively, it is custom made to fit and attach to the remaining hand (above the elbow or below) with maximum suspension using Basic Stamp (microcontroller, which have two parts software and hardware, which combine work together to function as prosthetic hand). Once it is attached, the prosthetic hand uses electronic sensors to detect muscle movements. It then translates this muscle activity into information that its electric motors use to control the artificial limbs, movements.

So how much it cost and use:

- Basic stamp:

It usually cost about \$139.99 from Parallax.com (which only comes with one chip), and you buy separate chip for each Myoelectric Hand and 3 servo motors cost \$65-70 from parallax(you can also easily buy it from amazon or eBay for cheap price used one) and can use same board to program chip.

- Programming:

Next comes the programming part which is very easy to learn and use. It is not like other programs that use difficult function. It (basic stamp) only uses a usual conversation words such as IF, GOTO, WHILE, PAUSE and END etc. which can be easily understand by others or users. On top of that it also comes with little programming guide, which teaches you how to program.

- Material for hand:

Now a days 3D printing make everything easier you can print anything in solid state such as in our case hand, which can be easily available in in shape and size. And cost of this can be very from \$100- \$300.

Total cost counting other expense let's say about \$800 - \$1000 for one hand.

In the end it is not just only custom made fit for your body, but it comes with less pricey cost, which is more available to ordinary peoples. Also, the availability of smaller- size electric hands can enabled the introduction of myoelectric prostheses o preschool children.

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