

Conclusion

It is important for the healthcare community to have an understanding of the development of bionic hands and the technology underpinning them as this area of medicine will expand.

For the purpose of developing prosthetic arms for heavy and intense applications, really demanding testing procedures are mandatory. Occupational challenges may then necessitate prosthetic adjustments that only appear once prosthetic devices are subjected to sufficiently hard tests. Control error rates of prosthetic devices need to achieve realistically low figures in the six to nine sigma range, as is standard across industry elsewhere.

Once heavy and intense work, robust control under sweat generating conditions and very low error rates are set as requirements, it will become a lot easier to identify viable technologies.

We found that initially, no currently available technology fulfilled these requirements. But body-powered controls could be brought to useful function with extensive user driven innovation and design, whereas myoelectric technology could not.

REFERENCES

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