

1. The title of your project

External receptor (transducer) to convert myoelectric signals to instruments via Bluetooth signals

2. your name/address/email

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3. Who do you think could join you [from other schools --eg chemical engineer, computer expert etc] in your research

Mechanical/electrical engineer, Computer programmers/ engineers

4. What is the objective

To design sensors to convert myoelectric signals to mobilize gadgets/ command gadgets at will of patients via Bluetooth signals

5. Brief methodology/design

Myoelectrics has been around for past 3 decades i.e conversion of muscle and nerve impulses to mechanical movements. So has speech and voice recognition. There even eye movement trackers available to assist the disabled.

However these technologies are expensive and custom made to individuals plus not easily accessible. We have a lot of disabled people especially in the orthopaedic field who can benefit from similar techs. The proposal is to design for the disabled specifically. But the tech must be commercially viable for the able bodied to make whatever technology cost effective.

The proposal is for able bodied individuals which can be later utilized for the disabled. The Medical school role is to test on human subjects.

6. The outcome of the projects [ie the usefulness of the products]

For the medical industry- facilitate patients with paralysis or stiff limbs to do daily chores like manning machineries, gadgets or devices with less effort.

For rehabilitation of patients using devices where patients who lose the ability to have control.

For commercialization – the video game industry where more interactive games which respond to human motion/ reaction