



Ox-Operational Exoskeleton

Reducing the Soldier's Burden

Soldier's Loads: A Pain in the Back.

Soldiers are reported to be carrying up to 73% of their body weight into combat.

A heavy backpack load carried over long distances can cause fatigue, pain and injury.

Many countries are researching augmentation of human strength using electromechanical exoskeletons to match and mimic the user's anthropometry and their multi-dimensional movements. Most are complex, require power and increase the user's energy cost – inhibiting acceptance by the military.

Ox-Operational - a weight off their shoulders

DST Group, through an innovative approach to exoskeleton design, has developed a proof-of-concept demonstrator of a non-rigid exoskeleton – OX. Encouraging test results indicate OX is an exciting solution to the problem of heavy backpacks.

What makes DST Group's OX better?

OX doesn't seek to augment the soldier's power, but focuses on reducing the problems of injury and fatigue by transferring the load to the ground.

OX is a passive, unpowered exoskeleton that provides a simple but pragmatic solution.

It is Light - weighing 3-4 kg; Easy to remove and pack away; Low cost; Conforms and integrates with the user and standard kit; and is less restrictive than current exoskeletons.

Commercial Opportunities

This is an exciting opportunity for industry to collaborate with DST Group to further develop this innovative, Australian invention into a fully functional and tested prototype for transition into service.

Patents have been filed and the potential market includes coalition infantry, firefighting services and the civilian trekking / leisure industry.



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