Lockheed Martin showcases incredible “HULC”

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At the recent Association of the U.S. Army conference in D.C., Lockheed Martin showcased its Human Universal Load Carrier [1] (HULC), the defense giant’s answer to Raytheon’s XOS-2 exoskeleton [2] (the “Real Iron Man Suit”). That’s right: it’s HULC vs. Iron Man.

HULC was actually unveiled [3] in February ’09, but with Raytheon’s XOS-2 conspicuously absent from AUSA, it was the HULC which took center stage. The two are a classic study in competing design philosophies. The XOS-2 is a full exoskeleton suit, the type we’ve seen in Aliens [4] and Starship Troopers (the novel). All the heavy lifting appears to be done with the robotic arms.

By contrast, HULC leaves the user’s arms free. A shoulder rail, in concert with robotically-enhanced back and leg support, enables the heavy lifting. Both the XOS-2 and HULC [5] can reportedly carry up to 200 lbs. But HULC appears more flexible—the arms are left free to tote small arms or other crucial pieces of equipment. And though Raytheon has a video of the XOS-2 kicking a soccer ball, the HULC appears more mobile. It’s a figurative knee brace vs. a suit of armor.

Lockheed Martin's Human Universal Load Carrier or "HULC". Photos courtesy of Lockheed Martin.

The differences are exemplified in the companies' respective marketing efforts—while XOS-2 is portrayed in a garrison environment, likely a hangar or flight line, HULC is shown in the field. Ultimately, the two superheroes, er, *exoskeletons* may find a way to coexist. HULC may be more flexible, but for heavy lifting, you'd need to rig a harness, whereas with XOS-2, it's plug n' play since the arms do the lifting. A minor difference, but it may be enough to promote XOS-2 for strict, repetitive heavy lifting.

The incredible HULC could be a strong field asset. Just as "fireteams" contain one automatic rifleman, I can see each squad or platoon having a HULC-equipped soldier.

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[1] http://www.wired.com/dangerroom/2010/10/watch-army-exoskeletons-stomp-haul-steel/
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