

## Wasilla man constructing 18-foot-tall not-a-robot

*Machine may prove helpful by shooting nine-inch nails from the shoulders and 20-foot flames from forearms*

By **RACHEL D'ORO**

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WASILLA - As Carlos Owens Jr. envisions it, the humanoid machine he's building will shoot nine-inch nails from the shoulders and 20-foot flames from the forearms. "You've got to have flame-throwers!" he says.

The red backlit eyes of his 18-foot hydraulic mecha - please don't call it a robot - will glow, but they're just for show. Five cameras will be the real eyes, allowing the operator riding inside the steel contraption to see via a laptop computer and flatscreen monitor rigged inside.

When it's all done, he'll have a walking exoskeleton that will make him stronger than a grizzly bear, he said. So what if this is the stuff of science fiction fantasies?

"I'm 110 percent positive this will work," the soft-spoken apprentice ironworker said during a recent break from the all-consuming project taking shape in his parent's back yard. "Failure is not an option. I have no choice but to do this. If I don't do it, I will explode."

So great is his confidence that Owens, 27, already has arranged to debut his mecha at a demolition show where it will bash cars this summer at a local racetrack just north of Anchorage.

And that's only the beginning for the Philippines-born offspring of retired Air Force members. Owens, a former heavy equipment mechanic with the Army Reserves, imagines mechas boxing in arenas, fighting wildfires, repairing distant space stations,



**Al Grillo / The Associated Press**

► It's good to have large friends: Carlos Owens Jr. stands next to his 18-foot tall hydraulic "mecha" earlier this month at his parents' house in Wasilla. Owens envisions the humanoid machine he's building will shoot nine-inch nails from the shoulders and 20-foot flames from the forearms.

even fighting enemy soldiers in battle. The U.S. military has spent millions and a half decade developing a limited exoskeleton to help soldiers carry supplies.

Owens figures his prototype, which he began building in October 2003, will set him back about \$20,000.

Standing in his parents' back yard on a subfreezing morning in January, the 6-foot-5 Owens was dwarfed by the slouching rusty red exoskeleton.

It's the culmination of two previous attempts and a lifetime fascination with the inner workings of machinery. A 35-foot wooden template built in 2001 now lies folded in another part of the property. In the winter of 2002 Owens began building a 25-foot mecha, which turned out too great for his shoestring budget. He scaled down, transferring the steel parts to the present project he covers with a tarp to shield it from the snow.

Besides mild steel - stainless would be too expensive - 23 hydraulic cylinders are woven throughout, giving the mecha 46 possible movements. An 18-horsepower gas engine will provide the power and a car battery the juice for the computer, cameras, lights and sound effects. Fiberglass skin will allow the operator to stay fully hidden.

Much of the parts have come from auto parts stores and online vendors.

Owens plans to pad a central compartment in which to operate the mecha, controlling it with his own movements. When he lifts a leg or flexes an arm so will his creation, according to the plan. The finished product will be painted black with red trim and will look like a giant robot, he says.

Success hinges on finding a way to balance a machine packing 3,500 pounds per square inch. To counter the possibility of falling down inside his steel armor, Owens has built the bottom half to weigh far more than the top. He's also installed "training feet" to rely on until he gets the hang of it.

"It's costing me a bit, but that's OK," he said. "Dreams don't come cheap."

The germ of that dream was sparked in childhood with his first look at "The Transformers" cartoons, further fueled by sci-fi movies, such as "Star Wars" and the

"Alien" series. Don't even get him started on the implications explored last summer by the Will Smith flick, "I, Robot."

No wonder his parents take his current obsession in stride. They recall the times he raided scrap yards, once bringing home a lawnmower to simply take it apart. When he was seven, he dismantled a toy robot and put it back together. As a teenager, he wanted to build a boat, but his mother, Randi Owens, quickly put her foot down. Now she just watches as her son works on his most ambitious endeavor to date, even on the coldest days when numb hands are no excuse to quit.

"He eats, sleeps and drinks this thing," Randi Owens said. "This is his passion."

