

×

×

HOME

ENTERTAINMENT

NIGHTLIFE

STYLE

GIRLS

SEX & CULTURE

HUMOR

PLAYBOY PLUS

VIDEO

SHOP

MORE

◦

MISS SOCIAL

◦

SUBSCRIBE

◦

PLAYBOY RADIO

◦

PLAYBOY.TV

◦

PLAYBOY MOBILE

PLAYBOY PLAYBOY PLAYBOY PLAYBOY PLAYBOY

EVERY ISSUE, EVERY PLAYMATE

iPLAYBOY
JOIN NOW

ADVERTISEMENT

MEGABOT IS MAKING THE GIANT MECH COMBAT ROBOT OF YOUR DREAMS

By Chris Barylick

Photography by Chris Barylick

SEPTEMBER 15, 2015

SHARE



MEGABOT CO-FOUNDERS MATT OEHRLEIN AND GUI CAVALCANTI POSE ATOP THE MARK II ROBOT

Walk through the block-long American Steel Studios warehouse near the docks of West Oakland and you'll notice a few things. Past the arc welders, grinders, dissected cars and three-story-high rust-colored rebar pipe statues destined for next year's Burning Man, MegaBots co-founders Gui Cavalcanti, Matt Oehrlein and Brinkley Warren are attempting to not only build the first American combat mech robot, but also start the world's first international giant robot fighting league.

It looks like they might pull it off.

The MegaBots Mark II robot squats at a low 11.5 feet on its treadmill system (just low enough to be put on a trailer and transported across the U.S. without destroying any overpasses), its green and yellow metal canopy flanked by rust-colored arms carrying an obscenely powerful paintball cannon and a 20-cannon paintball missile launcher. The robot, covered in a layer of grease and grime, houses both a gunner and a driver and represents the dreams of everyone who grew up watching, playing with, and loving giant robots in every capacity.

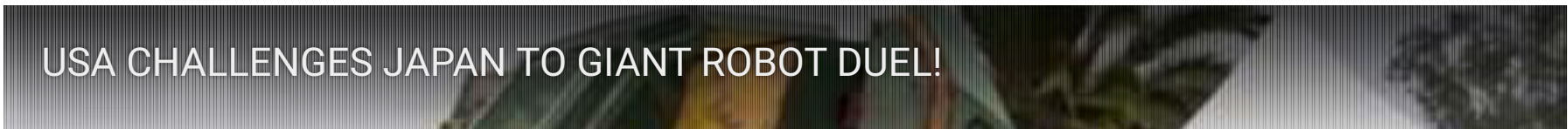
“Basically, we have this childhood of growing up playing the video games, watching giant robots. It’s an entire generation of people who’ve grown up playing *MechWarrior* and watching *Transformers*,” said Matt Oehrlein, co-founder of MegaBots and the Lead Electrical engineer on the project. “We experience that as kids and thought ‘this would be great if it was real some day, but it probably won’t happen, probably not within our lifetimes.’ And so we’re setting out to change that. We’re taking all of those robots from pop culture and science fiction and making them a reality.”

This dream began to come to fruition when Oehrlein teamed up with Cavalcanti. The two, both veterans of do-it-yourself workspaces around the country, began to play around with Cavalcanti’s idea of building a giant robot mech that could be piloted and used for combat.

“I started the idea, started doing some research two years before MegaBots was founded,” said Cavalcanti, CEO and co-founder of MegaBots as well as the Mechanicals and Lead Designer on the project. “That was how to draw the power units, how to make the right actuators for this type of technology, how to make guns, custom ammunition, stuff like that. But then, when I found an investor who was willing to help us build the prototype, I thought ‘Gonna need a team, gonna need someone to share the vision with’ and reached out to Matt.”

The investor, Josh Adler of Washington, DC, was able to finance the creation of the MegaBot Mark I prototype. He cut a check and quickly moved Oehrlein and Cavalcanti out west in February to begin work on the robot. Thus began a frantic three-month marathon, complete with 18-hour workdays, to have the robot ready to debut on May 16th at Maker Faire, one of the largest do-it-yourself trade shows in the country.

The Mark I, upon its debut, drew massive crowds who happily watched the bot fire three-pound paintball rounds and missiles through car windows and deep into car door panels at speeds between 120 and 150 miles per hour.



USA CHALLENGES JAPAN TO GIANT ROBOT DUEL!



The next step was clear. Knowing of only one other giant mech robot in the world, Suidobashi Heavy Industries' Kuratas robot, Oehrlein and Cavalcanti issued a challenge on the Fourth of July. Donning sunglasses and American flags as capes, flamethrowers erupting behind them, they challenged their Japanese counterparts to a giant robot duel. Suidobashi gladly accepted, and it was agreed that the two robots would engage in combat in a neutral location in a year's time.

CHALLENGE ACCEPTED



This opened up countless new possibilities. The challenge itself placed Oehrlein and Cavalcanti in the position of having to make the Mark II robot combat-ready, thereby beginning a new effort to work with advisors from places such as NASA, MythBusters, BattleBots, Howe and Howe, Autodesk and Industrial Light and Magic to get the Mark II faster, better armored, more mobile, and more stable upon impact, and to include a chainsaw arm for the melee combat the Japanese insisted on as part of the fight. *Plus* they wanted it to look every bit like a Hollywood dream come true in the process. This has also opened the door for the creation of an international giant robot fighting league, which Oehrlein and Cavalcanti say there's some interest in; they've received "five or six different requests to join in—one just recently."

"People love giant robots. People love sports. MegaBots is the major leagues of giant robot sports," said Brinkley Warren, co-founder of MegaBots and the company's Director of Business Development.

Despite the fact that the creation of the MegaBots robot has taken months of real time and thousands of man hours to create—with thousands yet to go (MegaBots is looking to add better armor, a better tread system for speed and stability, a slick paint job and other improvements)—the unit itself is still a comparatively inexpensive piece of equipment to get out the door in terms

of major league sports, which is what a giant robot fighting league could become.

“Something like the Mark II, which is slow and needs a lot of upgrades to become combat ready, is like a quarter million dollars,” said Cavalcanti. “It’s like ‘Ok, it’ll cost \$500,000 to be bare minimum, really exciting to watch.’ And then, the \$1.5 million mark is kind of like the ultimate version of what these robots could really be.”

“A NASCAR team needs at least \$1.5 million per car per season,” continued Cavalcanti. “An F1 team, those cars are \$3 million each per season. That’s not to say anything about the team costs.”



Even with a \$3 million price tag for running an F1 racer for a year, sponsorships alone rake in \$25 million for all the logos present on the car. This cost is still pretty cheap in terms of costs for a major league sport and with strong interest already present, could make the path to a MegaBots robot fighting league that much easier.

So how do you make a potential robot fighting league awesome? Talk with your intended opponents about how it can start cool and become even cooler.

“We communicate with the Japanese about once every two weeks. And, basically, at this point, we’re kind of like partners in this whole event. We could do the whole ‘We’re not going to talk to each other and we’re just going to build our robots and see what happens,’ but ultimately that would result in a really terrible fight, because one person would be like ‘Ok, I’m just going to go after your leg’ and pull your leg out and the fight’s over right away,” said Oehrlein. “What we’re doing is we’re working very carefully with them to create a set of rules that’s both really fun to design a robot for, but also produces entertaining fights, because ultimately it’s gotta be entertaining. We’ve gotta give people crazy tactics, crazy looking robots and just a shit ton of robot destruction. People want to see, I think even more so than like ‘I want my team to win’ or ‘I want that team to win’, it’s ‘I just want to see robots beat the shit out of each other and just destroy each other.’”

If Oehrlein wants his destruction, he’ll probably get it, even though some of it’s been inflicted on him to date. “Matt’s gone in the cockpit and we’ve shot him with the missile launcher. That was pretty fun for me and not as much fun for him,” said Cavalcanti, laughing at the memory.

“We were in this warehouse back in Boston doing this video, and we had put a bunch of GoPros in the cockpit and had them running,” said Oehrlein. “This was in Boston and it was in October, so it was starting to get pretty cold, the paint is gelling together and I’m like ‘Oh my god, this is so shitty!’ and I’m staring down the barrel of this 20-shot missile launcher...And the funny thing is we’d tried to test it. We’d tried to test the missile launcher and pointed it at the cockpit. We’d put three missiles in just to see what this looks like for launching missiles. We had three missiles in one cannon and 20 missiles in the other for the 20-shot cannon salvo.

“So we fired three missiles and they all just veered off to the side and we’re like ‘Well, we have no fucking idea of what this is going to look like and we only have 20 missiles left, so, Matt, just get in and we’re just going to find out this way!’ So, I get in the cockpit with a t-shirt and a paintball mask for armor, I get in, get the paintball mask on, then we line it up, we launch like 20 fuckin’ missiles at me and it’s just like the first one hits the cockpit, it breaks up, the paint comes through and it blows my mask off to the side. So then my face is exposed, all the paint is coming in, it feels like a fucking fire hose, these things are launching at like 150 miles an hour at my face, so I throw my arms up, the foam is coming through the grate and lacerating my arms, because it’s this kind of sharp, crystalline structure when it breaks up, so it’s slicing my arms open, I’m like ‘Oh, dear God, I don’t know...’



He continues, “My eyes are closed, so after the first two missiles I’m blind and the missiles are like ‘Whack! Whack! Whack! Whack! Whack!’ on the frame and I’m like ‘Oh, God, am I gonna die?!!’ and finally it stops and I’m soaked and the canopy comes up and my eyes are burning because we had made the paint and we wanted it to be washable because we’re inside the warehouse and the landlord of the warehouse said ‘You can’t use something that’s going to stain,’ so we made it out of dish soap and talcum powder and food coloring and it’s in my eyes and burning my eyes because dish soap in your eyes burns like shit, I’m pouring bottles of water in my eyes and like ‘That was the worst experience of my life and this better look fucking fantastic on the GoPros’ and the guy taking the footage is like ‘Um, yeah, the batteries are dead on here...I didn’t get it, so you gotta go back...’”

This, Cavalcanti cited, was fair payback for Oehrlein’s generally being the first to test out cool new features such as driving the MegaBot and being the first to try out the weapon systems.

“The deal was you fire the cannon for the first time, you get shot at,” said Cavalcanti.

WHEN THE DUST SETTLES



CAVALCANTI SHOWS OFF ONE OF THE MISSILE ROUNDS TO BE USED IN THE MEGABOTS CHALLENGE

With Oehrlein and Cavalcanti putting in 18 hour days to finish the robot, the question arises as to what the next step might be once the duel with Japan is done. The answer is simple: get the giant robot fighting league up and running.

“We’re going to be working behind the scenes and so there will be a public reveal of all the work we’ve done, sort of behind the scenes, after the duel is over,” said Oehrlein. “The duel is finished, the world sees what giant fighting robots is like and they go ‘This is so fucking awesome, we want more!’ and we go ‘We have the answer’ and it’s a giant fighting robot sports league. Or, if we’re good about it, we may already have the teams lined up and ready to go and maybe even be working on the robots already to accelerate that timeline because we to accelerate it so it’s not like ‘Oh, ok, one event happened, now we have to wait another year for another event to happen’...We want to accelerate that timeline as quickly as possible so people can stay engaged, they can be like ‘Oh, that was so awesome!’ and the next one is right around the corner.”

With Cavalcanti and Oehrlein spending literally every waking moment on the MegaBots project, it seems to be worth it.

“Even though we work these super long hours and it’s super intense, this is like The Dream Job of not only us, but so many people,” said Oehrlein. “It’s like we’re pretty fucking lucky to work those 18 hours a day building the first giant mech that’s going to go into an international robot fight. People are like ‘This is the world I live in?’ It’s super intense, but at the same time, it feeds us. “

A world with giant robot fighting league, wherein almost anything you’ve ever seen or dreamt of as a kid watching *Transformers*, *Robotech*, *Mecha Godzilla*, *Pacific Rim* or anything else with giant robots is that much closer to being reality. And the only constraints are the creators’ imaginations. That sounds like a world a lot of us would like to live in.

The MegaBots project is in the final stages of its second major Kickstarter fundraiser, which will afford the Mark II robot better armor, a faster movement and balance system, a chainsaw arm for melee combat and/or a Hollywood-level paint job, depending on which goals are met. For more information, visit the [Kickstarter page](#), and you can check out the overall project on their web site at megabots.com.



Chris Barylick is a gaming journalist living in Berkeley, California. He has written for GamePro, PC Gamer and the Washington Post and was once tackled by a heckler who looked exactly like George Lucas.

RELATED: Gamer Next Door: Pam and Amelia Take The Whisper Challenge





SHARE



TAGS

- ROBOTS
- GAMING
- ENTERTAINMENT

YOU MAY LIKE

What Are These Chinese Ships Doing In Alaska's Waters?

Money Morning Report Subscription

Brilliantly Simple Tactic To Pay Down Your Credit Cards

LendingTree

Haircut Inspiration: 350+ Gorgeous Short Hairstyles

SheKnows

Khaleesi Is the Queen of Going-Out Tops

The Cut

How Coconut Oil Will Change Your Life

Is Worth It

Banks Feel Fooled by this Brilliant Mortgage Payoff Tip

Rate Marketplace

Watch What Happens! 4×4 Dodge Ram vs Tree Stump is Good Stuff.....

Man-Break

Her Dress Dropped Jaws At The 2015 Met Gala

StyleBistro

Sponsored Links by Taboola

YOU MAY LIKE

Khaleesi Is the Queen of Going-Out Tops

The Cut

Banks Feel Fooled by this Brilliant Mortgage Payoff Tip

Rate Marketplace

7 Reasons Why Glasses Should be Bought Online

GlassesUSA.com

Watch What Happens! 4×4 Dodge Ram vs Tree Stump is Good Stuff.....

Man-Break

Her Dress Dropped Jaws At The 2015 Met Gala

StyleBistro

How Coconut Oil Will Change Your Life

Is Worth It

An overlooked method to pay down credit card debt

NextAdvisor

Are You Ignoring This \$15k Social Security Bonus?

The Motley Fool

Sponsored Links by Taboola

SIGN UP FOR EXCLUSIVE PHOTOS, VIDEOS, HUMOR AND MORE!

Your Email Address

you@somewhere.com

SUBSCRIBE NOW

PLAYBOY SOCIAL





The best way to sell a shirt
to men is to show them
how well it fits a woman

BUY
MORE

ADVERTISEMENT

MAGAZINE



SUBSCRIBE

PLAYBOY PLUS



SUBSCRIBE

CONTENTS

[Entertainment](#)

[Nightlife](#)

[Style](#)

[Girls](#)

[Sex & Culture](#)

[Humor](#)

[Video](#)

[Privacy Policy](#)

[About Us](#)

[Sitemap](#)

SITES

[Playmates.com](#)

[Playboy Mobile](#)

[Playboy Store](#)

[Playboy Archive](#)

[Playboy Enterprises](#)
[Playboy Careers](#)
[Playboy Events](#)
[Playboy Radio](#)
[Playboy.TV](#)
[Special Edition Magazines](#)
[Magazine Customer Support](#)

©2015 Playboy Enterprises. All rights reserved.

