1
00:00:01,676 --> 00:00:01,766
[Brandi Dean] Hi!

2
00:00:01,986 --> 00:00:04,086
Welcome back to the Robonaut 2 lab.

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00:00:04,086 --> 00:00:08,356
Just recently in orbit we saw the astronauts
working with Robonaut on the first work

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00:00:08,426 --> 00:00:09,786
that it was going to accomplish in orbit.

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00:00:09,846 --> 00:00:13,356
But meanwhile, here on the ground the
engineers have been working on some spinoffs

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00:00:13,516 --> 00:00:15,576
from the technology they
used to invent Robonaut.

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00:00:15,976 --> 00:00:20,276
And here we have with us talking
about that today the GM Lead Engineer

8
00:00:20,376 --> 00:00:23,126
for the Robo-Glove project Chris Ihrke.

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00:00:23,586 --> 00:00:24,546
Thanks for talking with us Chris.

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00:00:24,776 --> 00:00:24,966
[Chris Ihrke] Sure.

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00:00:25,386 --> 00:00:27,376
[Brandi] So, okay, we already
talked with Lyndon a little

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00:00:27,376 --> 00:00:29,356
but about what this glove actually does.

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00:00:29,396 --> 00:00:31,496
But us tell a little bit
about how GM is involved.

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00:00:32,236 --> 00:00:36,256
[Chris] Well, GM and NASA are partnered
together on a variety of robotic projects

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00:00:36,306 --> 00:00:40,466
because we share the common interests of
finding ways that technology can assist humans.

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00:00:40,816 --> 00:00:41,226
[Brandi] Okay.

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00:00:41,626 --> 00:00:47,176
And so, how does, why is that
important for automotive industry?

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00:00:47,176 --> 00:00:49,306
How does the, what's the connection there?

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00:00:50,286 --> 00:00:54,946
[Chris] Well in this, the case of the Human
Grasp Assist Device here we are looking

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00:00:55,026 --> 00:01:00,856
for applications in automotive, in the
automotive industry where ergonomic stressors,

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00:01:00,856 --> 00:01:06,106
repetitive motion injuries, or the risk of
those types of injuries can both be hazardous

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00:01:06,106 --> 00:01:08,536
to our people and drive inefficiencies
in our process.

23
00:01:08,646 --> 00:01:08,976
[Brandi] Okay.

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00:01:09,046 --> 00:01:12,686
So for NASA we talked about how, we were
looking at, you know, spacewalk uses.

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00:01:12,766 --> 00:01:15,806
They get their, their hands get tired when
they're on spacewalks since they're using them

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00:01:15,856 --> 00:01:18,416
so much and having to work
against the spacesuit glove.

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00:01:18,766 --> 00:01:20,296
I guess it's kind of the same thing for y'all.

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00:01:20,296 --> 00:01:23,246
You're doing the same task over and
over and it takes a lot of strength?

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00:01:23,336 --> 00:01:23,696
[Chris] Yes.

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00:01:24,556 --> 00:01:27,826
There's a wide range of tasks
in automotive assembly.

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00:01:27,826 --> 00:01:33,356
Some of them require a firm grasp on a
trigger type device or lifting a heavy object.

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00:01:33,876 --> 00:01:39,566
Or some require a strong pinch force for
snapping plastic parts together for example,

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00:01:39,986 --> 00:01:44,276

for holding tools firmly that
may be vibrating while working.

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00:01:44,646 --> 00:01:48,456
So any of these are possible
applications where some,

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00:01:48,506 --> 00:01:51,776
an assistive technology would help
reduce the risk of injury for the user.

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00:01:51,976 --> 00:01:52,236
[Brandi] Okay.

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00:01:52,316 --> 00:01:54,886
So I guess y'all have good reason
to be excited about this glove too.

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00:01:55,016 --> 00:01:55,146
[Chris] Yep.

39
00:01:55,736 --> 00:01:56,076
[Brandi] Alright.

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00:01:56,076 --> 00:01:59,796
Well, has the partnership in
general been a good thing for y'all.

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00:02:00,156 --> 00:02:01,056
[Chris] Absolutely.

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00:02:01,656 --> 00:02:06,616
There are, in addition to the robot there
are, this is just one of several spinoffs

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00:02:06,616 --> 00:02:09,496
from the technology within
the robot that we're hoping

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00:02:09,496 --> 00:02:13,126
to find more short term uses
for in manufacturing.

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00:02:13,216 --> 00:02:14,756
[Brandi] Why, what do you think it is

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00:02:14,756 --> 00:02:19,346
about the Robonaut 2 system that's
so, so useful for so many things?

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00:02:20,366 --> 00:02:24,606
[Chris] Well, you know, the robot's dexterity
is outstanding and so there's a wide,

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00:02:24,606 --> 00:02:29,276
a much wider range of possibilities for the
use of a Robonaut-type system in manufacturing

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00:02:29,646 --> 00:02:32,946
than what we currently can find
today with traditional robots.

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00:02:33,206 --> 00:02:33,516
[Brandi] Okay.

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00:02:33,596 --> 00:02:36,816
So we might expect to see some
more uses come out of it, huh?