1
00:00:04,999 --> 00:00:02,750
for more than 50 years scientists and

2
00:00:06,940 --> 00:00:05,009
engineers at NASA's Johnson Space Center

3
00:00:09,860 --> 00:00:06,950
have pioneered breakthroughs in medicine

4
00:00:12,499 --> 00:00:09,870
computing thermal materials and systems

5
00:00:14,570 --> 00:00:12,509
engineering NASA technologies are

6
00:00:16,790 --> 00:00:14,580
innovative solutions that solve complex

7
00:00:18,620 --> 00:00:16,800
problems these patented core

8
00:00:20,330 --> 00:00:18,630
technologies are available through a

9
00:00:22,550 --> 00:00:20,340
license agreement that can enable

10
00:00:28,429 --> 00:00:22,560
entrepreneurs to create new products and

11
00:00:30,169 --> 00:00:28,439
new opportunities participate so this is

12
00:00:32,299 --> 00:00:30,179
Robo glove a robotic system that was

13
00:00:34,700 --> 00:00:32,309

developed with between NASA General

14
00:00:37,250 --> 00:00:34,710
Motors spin-off of the Robonaut 2

15
00:00:40,760 --> 00:00:37,260
technology that was built into the robot

16
00:00:42,860 --> 00:00:40,770
to hand and is powered based on Robonaut

17
00:00:44,600 --> 00:00:42,870
actuation and an external power supply

18
00:00:47,810 --> 00:00:44,610
primary application that we were

19
00:00:50,630 --> 00:00:47,820
developing at 4:00 was for the heavily

20
00:00:52,729 --> 00:00:50,640
repetitive tests so the best one that

21
00:00:54,979 --> 00:00:52,739
came to mind was assembly line worked

22
00:00:57,500 --> 00:00:54,989
whether you're doing a task repetitively

23
00:00:59,930 --> 00:00:57,510
throughout the day every 30 to 40

24
00:01:02,510 --> 00:00:59,940
seconds at a time some of these tasks

25
00:01:04,170 --> 00:01:02,520
requiring both high levels of dexterity

26
00:01:08,790 --> 00:01:04,180
and high levels of hands

27
00:01:10,740 --> 00:01:08,800
rubber glove is a separate entity it's

28
00:01:12,390 --> 00:01:10,750
kind of independent of everything the

29
00:01:14,850 --> 00:01:12,400
one thing that is needed is battery

30
00:01:16,770 --> 00:01:14,860
power we currently have a modular

31
00:01:19,590 --> 00:01:16,780
battery that plugs into a power case

32
00:01:21,750 --> 00:01:19,600
that would fit on the user's belt this

33
00:01:24,300 --> 00:01:21,760
can be this single unit and power to

34
00:01:27,330 --> 00:01:24,310
gloves for an eight-hour shift the

35
00:01:30,270 --> 00:01:27,340
inside of the Robo glove we have a set

36
00:01:32,430 --> 00:01:30,280
of actuators three of them here which

37
00:01:35,010 --> 00:01:32,440
pull on synthetic tendons that run

38
00:01:37,620 --> 00:01:35,020

through the glove out to the fingers we

39
00:01:39,690 --> 00:01:37,630
have a micro controller a set of sensors

40
00:01:41,130 --> 00:01:39,700
within the fingertips as well as back

41
00:01:43,440 --> 00:01:41,140
here at the micro controller allow the

42
00:01:46,320 --> 00:01:43,450
operator to tell the glove window closed

43
00:01:50,070 --> 00:01:46,330
how much to close by and when to open

44
00:01:53,400 --> 00:01:50,080
back up rubber glove is currently set up

45
00:01:54,390 --> 00:01:53,410
to be just in flexure so it just pulls

46
00:01:57,660 --> 00:01:54,400
the hand enclosure

47
00:01:59,610 --> 00:01:57,670
so any task that is needing to be

48
00:02:03,080 --> 00:01:59,620
grasped held for long periods of time

49
00:02:05,430 --> 00:02:03,090
somebody who is handling heavy equipment

50
00:02:07,080 --> 00:02:05,440
moving things around where they're

51
00:02:09,390 --> 00:02:07,090
picking objects out placing them

52
00:02:12,360 --> 00:02:09,400
somewhere any type of situation where a

53
00:02:13,520 --> 00:02:12,370
normal human is working around the task

54
00:02:16,610 --> 00:02:13,530
that is continuously

55
00:02:20,360 --> 00:02:16,620
the high spy hand strange then this

56
00:02:22,130 --> 00:02:20,370
application that works well the NASA GM

57
00:02:24,170 --> 00:02:22,140
Robo glove is a patented technology

58
00:02:25,309 --> 00:02:24,180
available for use through a license

59
00:02:27,920 --> 00:02:25,319
agreement with NASA

60
00:02:30,290 --> 00:02:27,930
Robo glove can benefit a wide range of

61
00:02:33,199 --> 00:02:30,300
applications and uses that can be sold

62
00:02:34,640 --> 00:02:33,209
to a wide range of markets to find out

63
00:02:37,360 --> 00:02:34,650

more about Robo glove and other