SPACESTATION LIVE

1
00:00:07,670 --> 00:00:06,070
we're here at the gilroy center at the

2
00:00:09,030 --> 00:00:07,680
johnson space center with a whole bunch

3
00:00:10,950 --> 00:00:09,040
of students from texas who are

4
00:00:13,030 --> 00:00:10,960
participating in the zero robotics

5
00:00:14,789 --> 00:00:13,040
experiment today i'm joined by ben

6
00:00:16,630 --> 00:00:14,799
morrell who's the lead mentor for the

7
00:00:17,990 --> 00:00:16,640
texas students here and also a couple of

8
00:00:20,070 --> 00:00:18,000
our lucky kids who have their stuff

9
00:00:21,590 --> 00:00:20,080
flying on space station right now now

10
00:00:23,029 --> 00:00:21,600
ben i want to start off with you just

11
00:00:24,630 --> 00:00:23,039
give us a little bit of background about

12
00:00:26,950 --> 00:00:24,640
the xero robotics program what is it

13
00:00:29,429 --> 00:00:26,960

we're watching here so zero robotics

14
00:00:31,269 --> 00:00:29,439
started in 2009 where astronaut greg

15
00:00:33,030 --> 00:00:31,279
chamitov was working with the spheres

16
00:00:35,430 --> 00:00:33,040
robots he recognized that they're quite

17
00:00:37,350 --> 00:00:35,440
a robust platform that was really a lot

18
00:00:39,190 --> 00:00:37,360
of potential to be used for for kids

19
00:00:41,270 --> 00:00:39,200
programming and from that working with

20
00:00:42,950 --> 00:00:41,280
mit they started off with zero robotics

21
00:00:45,029 --> 00:00:42,960
program where high school kids and

22
00:00:47,510 --> 00:00:45,039
middle school kids can program these

23
00:00:48,950 --> 00:00:47,520
robots controlling them to autonomously

24
00:00:50,630 --> 00:00:48,960
move around and carry out some kind of

25
00:00:52,310 --> 00:00:50,640
tasks so for instance the game this year

26
00:00:53,590 --> 00:00:52,320
is taking photos of an asteroid and

27
00:00:55,029 --> 00:00:53,600
they're competing against another team

28
00:00:56,790 --> 00:00:55,039
to try and get the most points for

29
00:00:58,150 --> 00:00:56,800
instance to take the most photos and

30
00:00:59,990 --> 00:00:58,160
what they do is they compete against

31
00:01:01,910 --> 00:01:00,000
each other to get through competitions

32
00:01:03,270 --> 00:01:01,920
and in their finals brackets and the

33
00:01:04,789 --> 00:01:03,280
finals they actually get to run their

34
00:01:06,310 --> 00:01:04,799
code on the spheres robots on the

35
00:01:07,670 --> 00:01:06,320
international space station which is

36
00:01:09,190 --> 00:01:07,680
what we're here today to see and it's

37
00:01:10,789 --> 00:01:09,200
just an amazing kind of thing for them

38
00:01:12,469 --> 00:01:10,799

to be able to do i mean it's very

39
00:01:13,990 --> 00:01:12,479
exciting anytime you get to see

40
00:01:16,070 --> 00:01:14,000
something these kids are working on in

41
00:01:17,670 --> 00:01:16,080
space what have they had to do to get to

42
00:01:19,109 --> 00:01:17,680
this point you know what what is what

43
00:01:21,190 --> 00:01:19,119
are these kids actually doing in their

44
00:01:22,630 --> 00:01:21,200
classrooms before they get here so these

45
00:01:24,070 --> 00:01:22,640
kids have been in a five-week summer

46
00:01:25,910 --> 00:01:24,080
program and so i started off learning

47
00:01:27,510 --> 00:01:25,920
the basics of how to code how to program

48
00:01:29,510 --> 00:01:27,520
and there's kind of a graphical program

49
00:01:30,870 --> 00:01:29,520
interface to help learn how to do that

50
00:01:32,230 --> 00:01:30,880
but at the same time they learn about

51
00:01:34,230 --> 00:01:32,240
maths they're learning about science

52
00:01:36,469 --> 00:01:34,240
physics about space about engineering

53
00:01:38,069 --> 00:01:36,479
about what nasa's doing and i don't know

54
00:01:39,429 --> 00:01:38,079
you guys having a fun time as well oh

55
00:01:41,270 --> 00:01:39,439
yeah having a good time learning how to

56
00:01:42,710 --> 00:01:41,280
work as a team yeah

57
00:01:44,870 --> 00:01:42,720
so they developed code to compete

58
00:01:46,630 --> 00:01:44,880
against the state so they had a texas

59
00:01:49,190 --> 00:01:46,640
competition these guys won the texas

60
00:01:50,630 --> 00:01:49,200
competition yeah

61
00:01:52,550 --> 00:01:50,640
then they collaborated worked with the

62
00:01:55,270 --> 00:01:52,560
other state the other teams in the state

63
00:01:56,469 --> 00:01:55,280

to develop their code to work on the

64
00:01:57,749 --> 00:01:56,479
what's going to be running at the moment

65
00:01:59,190 --> 00:01:57,759
on the international space station to

66
00:02:01,270 --> 00:01:59,200
compete against the other states in the

67
00:02:03,510 --> 00:02:01,280
nation okay and one more thing for you

68
00:02:06,069 --> 00:02:03,520
how important is it you know get kids

69
00:02:07,910 --> 00:02:06,079
involved at almost any age in these

70
00:02:10,630 --> 00:02:07,920
programming science math things like

71
00:02:11,910 --> 00:02:10,640
that i think it's incredibly important

72
00:02:13,350 --> 00:02:11,920
for many reasons

73
00:02:15,830 --> 00:02:13,360
one of the reasons is kind of to give

74
00:02:16,949 --> 00:02:15,840
you guys an idea of what i can do in

75
00:02:19,430 --> 00:02:16,959
engineering

76
00:02:21,190 --> 00:02:19,440
with science so against each other you

77
00:02:23,190 --> 00:02:21,200
might be able to have an idea of what an

78
00:02:24,630 --> 00:02:23,200
engineer does what a programmer does we

79
00:02:26,470 --> 00:02:24,640
might have no idea at all but doing this

80
00:02:28,550 --> 00:02:26,480
gives you a real idea i can do some

81
00:02:30,470 --> 00:02:28,560
awesome stuff in space in science and

82
00:02:32,550 --> 00:02:30,480
engineering type things second thing is

83
00:02:34,790 --> 00:02:32,560
inspiration to see that your guys code

84
00:02:36,309 --> 00:02:34,800
is on the international space station

85
00:02:37,509 --> 00:02:36,319
that's really inspiring you can do that

86
00:02:39,509 --> 00:02:37,519
you can do anything if you really want

87
00:02:40,869 --> 00:02:39,519
to do something it kind of shows you

88
00:02:42,949 --> 00:02:40,879

some really cool stuff

89
00:02:44,309 --> 00:02:42,959
working with nasa working in space

90
00:02:45,830 --> 00:02:44,319
there's some fantastic opportunities

91
00:02:47,910 --> 00:02:45,840
that you guys can work on

92
00:02:49,990 --> 00:02:47,920
and third thing is programming and those

93
00:02:51,589 --> 00:02:50,000
10 skills i think are really valuable in

94
00:02:53,030 --> 00:02:51,599
any field so i think that's kind of

95
00:02:54,949 --> 00:02:53,040
something really important to get

96
00:02:56,470 --> 00:02:54,959
exposure to okay well now i want to get

97
00:02:58,309 --> 00:02:56,480
to some of the stars of the hour here

98
00:02:59,670 --> 00:02:58,319
with our texas teams we have stephen and

99
00:03:01,430 --> 00:02:59,680
tristan guys

100
00:03:04,309 --> 00:03:01,440
how cool is it to see something that you

101
00:03:06,229 --> 00:03:04,319
worked on in space right now it's

102
00:03:07,910 --> 00:03:06,239
incredible yeah it's like you would

103
00:03:09,589 --> 00:03:07,920
never think that like just this little

104
00:03:11,030 --> 00:03:09,599
thing you decide to do in summer can get

105
00:03:14,149 --> 00:03:11,040
it all the way up into the international

106
00:03:16,229 --> 00:03:14,159
space station it doesn't seem real yeah

107
00:03:17,750 --> 00:03:16,239
okay well i mean is this something you

108
00:03:19,589 --> 00:03:17,760
guys are already thinking about working

109
00:03:21,110 --> 00:03:19,599
on you want to be are you our next

110
00:03:22,470 --> 00:03:21,120
astronauts or our engineers of the

111
00:03:23,430 --> 00:03:22,480
future

112
00:03:25,509 --> 00:03:23,440
probably

113
00:03:27,350 --> 00:03:25,519

yeah we were always kind of interested

114
00:03:29,030 --> 00:03:27,360
in science and programming so this just

115
00:03:30,949 --> 00:03:29,040
seemed awesome

116
00:03:32,550 --> 00:03:30,959
okay well best of luck to you guys best

117
00:03:34,229 --> 00:03:32,560
of luck to the texas and all of the

118
00:03:36,470 --> 00:03:34,239
other teams competing today in the

119
00:03:37,990 --> 00:03:36,480
spheres competition we're real excited

120
00:03:39,430 --> 00:03:38,000
here at the johnson space center as are