1
00:00:08,150 --> 00:00:06,070
when i got accepted into this summer

2
00:00:10,390 --> 00:00:08,160
program i wasn't sure what was going to

3
00:00:13,270 --> 00:00:10,400
happen but i was pretty sure it wasn't

4
00:00:15,110 --> 00:00:13,280
me bored i was super excited to go i

5
00:00:16,790 --> 00:00:15,120
mean when i was little i dreamed of

6
00:00:18,950 --> 00:00:16,800
visiting johnson space center i heard

7
00:00:21,189 --> 00:00:18,960
all about how people had so much fun

8
00:00:23,269 --> 00:00:21,199
there and on their vacations but

9
00:00:26,310 --> 00:00:23,279
i'd never gotten the chance to go and i

10
00:00:30,070 --> 00:00:26,320
mean here i was nasa was paying me for

11
00:00:32,229 --> 00:00:30,080
to come and visit and work and learn i

12
00:00:35,830 --> 00:00:32,239
felt ecstatic when i was accepted to

13
00:00:37,910 --> 00:00:35,840

haas i was excited to go to nasa as an

14
00:00:40,150 --> 00:00:37,920
organization that has made so much

15
00:00:45,029 --> 00:00:40,160
history and will never be forgotten as

16
00:00:50,630 --> 00:00:47,750
we started hossoff this year with a

17
00:00:52,470 --> 00:00:50,640
project to make a tool that would work

18
00:00:53,430 --> 00:00:52,480
for any situation

19
00:00:55,910 --> 00:00:53,440
our

20
00:00:58,229 --> 00:00:55,920
team decided unanimously on the

21
00:01:00,709 --> 00:00:58,239
peripheral object orienter basically

22
00:01:03,910 --> 00:01:00,719
what it did was that it was a elongated

23
00:01:05,830 --> 00:01:03,920
wrench for getting into smaller spaces

24
00:01:08,149 --> 00:01:05,840
that way if you

25
00:01:10,950 --> 00:01:08,159
were working on the iss let's say and

26
00:01:12,390 --> 00:01:10,960
you need to get to a screw that was on

27
00:01:13,750 --> 00:01:12,400
that was loose

28
00:01:15,270 --> 00:01:13,760
but you couldn't reach your hand in

29
00:01:17,429 --> 00:01:15,280
there you could use a peripheral object

30
00:01:20,550 --> 00:01:17,439
oriented to slide it in to the smaller

31
00:01:22,550 --> 00:01:20,560
space and it will have different shapes

32
00:01:27,190 --> 00:01:22,560
for different possible sizes of the

33
00:01:32,469 --> 00:01:29,429
on monday we met john greener a

34
00:01:34,550 --> 00:01:32,479
planetary scientist who works at nasa he

35
00:01:35,429 --> 00:01:34,560
talked to us about the future of space

36
00:01:37,270 --> 00:01:35,439
travel

37
00:01:38,870 --> 00:01:37,280
i think the thing that stuck most in our

38
00:01:40,630 --> 00:01:38,880

minds during the week was the important

39
00:01:42,789 --> 00:01:40,640
law of rocket science

40
00:01:44,550 --> 00:01:42,799
mass equals money

41
00:01:46,230 --> 00:01:44,560
the more things you put on your rocket

42
00:01:50,630 --> 00:01:46,240
the more expensive it is to complete

43
00:01:54,469 --> 00:01:52,789
mr gruener talked about beyond low earth

44
00:01:56,149 --> 00:01:54,479
orbit or leo which helped us understand

45
00:01:58,389 --> 00:01:56,159
the requirements for our missions to be

46
00:02:00,230 --> 00:01:58,399
successful mr gruner also helped us

47
00:02:01,670 --> 00:02:00,240
decide the parameters of our project as

48
00:02:05,510 --> 00:02:01,680
a group making it easier to work

49
00:02:09,990 --> 00:02:07,510
on monday we had cody kelly come and

50
00:02:11,830 --> 00:02:10,000
speak to us about spacesuits everyone

51
00:02:13,990 --> 00:02:11,840
always admires spacesuits for their

52
00:02:16,150 --> 00:02:14,000
appearances but never for the amount of

53
00:02:18,390 --> 00:02:16,160
time and effort put into them

54
00:02:20,309 --> 00:02:18,400
it takes a year just to design them and

55
00:02:23,430 --> 00:02:20,319
that's not even including the process of

56
00:02:25,510 --> 00:02:23,440
making them mr kelly's presentation

57
00:02:28,869 --> 00:02:25,520
really opened up my eyes to the effort

58
00:02:30,869 --> 00:02:28,879
put into keeping these astronauts alive

59
00:02:32,550 --> 00:02:30,879
as well as the effort required in

60
00:02:33,750 --> 00:02:32,560
designing the suits it was really

61
00:02:35,270 --> 00:02:33,760
interesting to see the amount of

62
00:02:36,949 --> 00:02:35,280
technology that was crammed into the

63
00:02:38,550 --> 00:02:36,959

suits as well as the considerations for

64
00:02:42,470 --> 00:02:38,560
the environment that i want men to work

65
00:02:44,309 --> 00:02:42,480
on i mean we're designing them in

66
00:02:45,910 --> 00:02:44,319
on earth but they're meant to work in

67
00:02:48,150 --> 00:02:45,920
hard vacuum and

68
00:02:50,309 --> 00:02:48,160
microgravity that's not something that

69
00:02:52,630 --> 00:02:50,319
we can replicate here on earth very

70
00:02:53,910 --> 00:02:52,640
easily and so just seeing the ways

71
00:03:02,070 --> 00:02:53,920
different ways they have to design them

72
00:03:04,949 --> 00:03:03,430
so when we were first given the

73
00:03:06,869 --> 00:03:04,959
engineering challenge everyone had their

74
00:03:09,430 --> 00:03:06,879
own idea on what they wanted the robot

75
00:03:11,190 --> 00:03:09,440
to look like and different manipulators

76
00:03:13,509 --> 00:03:11,200
and a whole bunch of different ideas

77
00:03:16,070 --> 00:03:13,519
that in and of themselves alone they

78
00:03:18,229 --> 00:03:16,080
were good they were okay but only by

79
00:03:19,509 --> 00:03:18,239
collaborating and conjoining these ideas

80
00:03:21,110 --> 00:03:19,519
into

81
00:03:22,550 --> 00:03:21,120
this one robot that we all worked

82
00:03:24,789 --> 00:03:22,560
together on could we create something

83
00:03:26,949 --> 00:03:24,799
that was great be it the caster wheel

84
00:03:29,430 --> 00:03:26,959
that one of us decided to tack on on the

85
00:03:31,110 --> 00:03:29,440
end or the upward facing supersonic

86
00:03:33,589 --> 00:03:31,120
sensor that one of us

87
00:03:35,430 --> 00:03:33,599
suggested to give ourselves some control

88
00:03:37,509 --> 00:03:35,440

over the robot

89
00:03:39,030 --> 00:03:37,519
these combining these ideas allowed us

90
00:03:42,630 --> 00:03:39,040
to create something that none of us

91
00:03:48,229 --> 00:03:45,270
haas has had a profound impact on all of

92
00:03:50,390 --> 00:03:48,239
us and our lives will never be the same

93
00:03:52,789 --> 00:03:50,400
we have a great appreciation for the

94
00:03:54,789 --> 00:03:52,799
work it took to get to the moon and we

95
00:03:56,630 --> 00:03:54,799
already appreciate the effort of the

96
00:03:58,630 --> 00:03:56,640
teams that it will take to send people

97
00:04:00,470 --> 00:03:58,640
to mars

98
00:04:02,390 --> 00:04:00,480
i feel i gained a lot of experience and

99
00:04:03,990 --> 00:04:02,400
insight into team projects and the work

100
00:04:04,789 --> 00:04:04,000
required to collaborate and complete

101
00:04:07,670 --> 00:04:04,799
them

102
00:04:09,589 --> 00:04:07,680
i'm really proud of what house 2014 has

103
00:04:11,830 --> 00:04:09,599
accomplished and i would participate

104
00:04:13,830 --> 00:04:11,840
again in a heartbeat i'm

105
00:04:16,229 --> 00:04:13,840
incredibly grateful to the people who