



All-
Terrain
Hex-
Limbed
Extra-
Terrestrial

1
00:00:07,280 --> 00:00:06,050
hi I'm Lucy O'Brien I'm a software

2
00:00:10,180 --> 00:00:07,290
engineer at NASA's Jet Propulsion

3
00:00:14,240 --> 00:00:10,190
Laboratory I started working at JPL in

4
00:00:16,249 --> 00:00:14,250
2003 and this was around the time where

5
00:00:19,189 --> 00:00:16,259
the Mars exploration Rovers were

6
00:00:21,950 --> 00:00:19,199
launching this is in summer and the

7
00:00:25,130 --> 00:00:21,960
atmosphere at JPL was amazing for a high

8
00:00:27,920 --> 00:00:25,140
school intern who's 16 years old this

9
00:00:30,349 --> 00:00:27,930
was the most exciting place to be the

10
00:00:32,330 --> 00:00:30,359
team that was on my first year was

11
00:00:33,740 --> 00:00:32,340
working on writing operations planning

12
00:00:36,799 --> 00:00:33,750
software for the Mars exploration Rovers

13
00:00:39,500 --> 00:00:36,809

so as a high school student I actually

14

00:00:42,790 --> 00:00:39,510

got a chance to write code help with the

15

00:00:58,870 --> 00:00:42,800

testing and help scientists with the

16

00:01:03,670 --> 00:01:01,630

so I was getting so much out of the

17

00:01:05,680 --> 00:01:03,680

internships they encouraged what a

18

00:01:06,970 --> 00:01:05,690

scientist has to go through they tell

19

00:01:09,720 --> 00:01:06,980

you that you have to write a proposal

20

00:01:12,730 --> 00:01:09,730

you have to go through the same steps of

21

00:01:15,580 --> 00:01:12,740

writing the final report and documenting

22

00:01:18,130 --> 00:01:15,590

your progress and five years later these

23

00:01:26,470 --> 00:01:18,140

scientists are still excited about being

24

00:01:32,780 --> 00:01:29,390

athlete is the all-terrain heck slimmed

25

00:01:35,360 --> 00:01:32,790

extraterrestrial Explorer athlete has a

26

00:01:38,240 --> 00:01:35,370

six sided frame which means it has six

27

00:01:40,130 --> 00:01:38,250

different faces each face has stereo

28

00:01:43,970 --> 00:01:40,140

pair of cameras which act like eyes

29

00:01:48,980 --> 00:01:43,980

human eyes and can return images that

30

00:01:53,560 --> 00:01:48,990

can be in 3d the rover has six legs and

31

00:01:58,969 --> 00:01:55,970

special thing about this is that not

32

00:02:02,480 --> 00:01:58,979

only can we drive on wheels but we can

33

00:02:04,490 --> 00:02:02,490

use the legs to walk around over large

34

00:02:07,070 --> 00:02:04,500

rocks or in terrain that we couldn't

35

00:02:10,250 --> 00:02:07,080

necessarily drive over now I'm looking

36

00:02:13,970 --> 00:02:10,260

at ways to allow operators to enter an

37

00:02:16,520 --> 00:02:13,980

immersive environment where they can see

38

00:02:18,410 --> 00:02:16,530

and almost feel what athlete is feeling

39

00:02:20,510 --> 00:02:18,420

when they're in this environment and

40

00:02:21,860 --> 00:02:20,520

this involves a lot of research and a

41

00:02:25,670 --> 00:02:21,870

lot of different fields of computer

42

00:02:28,520 --> 00:02:25,680

science when I tell my friends about

43

00:02:31,220 --> 00:02:28,530

what I do they are amazed they can't