
SpacetoGround

1
00:00:06,869 --> 00:00:05,030
houston station on space to ground

2
00:00:09,030 --> 00:00:06,879
welcome to space to ground i'm shaniqua

3
00:00:11,830 --> 00:00:09,040
vereen the seven members of expedition

4
00:00:13,749 --> 00:00:11,840
66 kept a busy pace of science all

5
00:00:15,829 --> 00:00:13,759
through january and february is looking

6
00:00:18,150 --> 00:00:15,839
to be just as packed

7
00:00:20,390 --> 00:00:18,160
european space agency astronaut matthias

8
00:00:23,029 --> 00:00:20,400
maurer recently printed samples from a

9
00:00:25,349 --> 00:00:23,039
handheld bioprinter bioprinting is a

10
00:00:27,670 --> 00:00:25,359
subcategory of 3d printing which uses

11
00:00:30,230 --> 00:00:27,680
viable cells and biological molecules to

12
00:00:32,310 --> 00:00:30,240
print tissue structures bioprint first

13
00:00:34,310 --> 00:00:32,320

aid demonstrates a portable handheld

14
00:00:36,229 --> 00:00:34,320
bioprinter that uses a patient's own

15
00:00:38,150 --> 00:00:36,239
skin cells to create a tissue forming

16
00:00:40,470 --> 00:00:38,160
patch to cover a wound and accelerate

17
00:00:42,709 --> 00:00:40,480
the healing process on future missions

18
00:00:44,630 --> 00:00:42,719
to the moon and mars bioprinting such

19
00:00:46,630 --> 00:00:44,640
customized patches could help address

20
00:00:47,670 --> 00:00:46,640
changes in wound healing that can occur

21
00:00:49,830 --> 00:00:47,680
in space

22
00:00:51,510 --> 00:00:49,840
extracting an individual cells before a

23
00:00:53,670 --> 00:00:51,520
mission may enable more immediate

24
00:00:55,270 --> 00:00:53,680
response to injury

25
00:00:57,510 --> 00:00:55,280
and what else is a buzz aboard the

26
00:01:00,389 --> 00:00:57,520
station the science continues with the

27
00:01:02,549 --> 00:01:00,399
bee astro b that is

28
00:01:04,630 --> 00:01:02,559
nasa flight engineer mark vande high

29
00:01:05,990 --> 00:01:04,640
performed a series of tests for the rome

30
00:01:08,149 --> 00:01:06,000
investigation

31
00:01:10,310 --> 00:01:08,159
rome uses the space station's astro b

32
00:01:12,789 --> 00:01:10,320
robots to observe and understand how

33
00:01:15,270 --> 00:01:12,799
targets tumble and uses this information

34
00:01:17,429 --> 00:01:15,280
to plan ways to safely reach them

35
00:01:19,670 --> 00:01:17,439
astro-b nasa's free-flying robotic

36
00:01:21,990 --> 00:01:19,680
system is designed to help astronauts

37
00:01:23,749 --> 00:01:22,000
reduce time they spend on routine duties

38
00:01:26,950 --> 00:01:23,759

leaving them to focus more on the things

39
00:01:29,510 --> 00:01:26,960
that only humans can do

40
00:01:31,990 --> 00:01:29,520
to hear more about astrobee catch this

41
00:01:34,069 --> 00:01:32,000
week's houston we have a podcast eric

42
00:01:36,310 --> 00:01:34,079
caterhagen the spheres and astrobee

43
00:01:38,390 --> 00:01:36,320
operations lead at nasa's ames research

44
00:01:41,749 --> 00:01:38,400
center will talk about what's abuzz with

45
00:01:44,230 --> 00:01:41,759
these flying robots in space

46
00:01:46,310 --> 00:01:44,240
and finally outside the station more

47
00:01:47,990 --> 00:01:46,320
science was deployed

48
00:01:49,910 --> 00:01:48,000
a pair of small satellites called

49
00:01:52,469 --> 00:01:49,920
cubesats were deployed outside the

50
00:01:54,950 --> 00:01:52,479
japanese kibo laboratory module this

51
00:01:57,109 --> 00:01:54,960
release included the lite1 cubesat which

52
00:01:58,789 --> 00:01:57,119
focuses on the detection of terrestrial

53
00:02:00,709 --> 00:01:58,799
gamma-ray flashes coming from the

54
00:02:02,709 --> 00:02:00,719
earth's atmosphere

55
00:02:05,030 --> 00:02:02,719
another cubesat developed by the georgia

56
00:02:07,749 --> 00:02:05,040
institute of technology has experimental

57
00:02:11,029 --> 00:02:07,759
deployable solar panels and a deployable

58
00:02:13,030 --> 00:02:11,039
uhf radio antenna the modest size cost

59
00:02:15,430 --> 00:02:13,040
and weight of cubesats like these are

60
00:02:17,990 --> 00:02:15,440
increasing access to space and expanding

61
00:02:20,229 --> 00:02:18,000
low earth orbit research to follow these

62
00:02:22,710 --> 00:02:20,239
experiments and for the latest updates

63
00:02:24,710 --> 00:02:22,720

follow along with us on twitter at iss

64
00:02:26,309 --> 00:02:24,720
underscore research

65
00:02:36,110 --> 00:02:26,319
that's face to ground thank you for