1
00:00:00,766 --> 00:00:05,104
[Music]

2
00:00:05,104 --> 00:00:06,839
>> Karen Nyberg: Hi, welcome to
the International Space Station.

3
00:00:06,839 --> 00:00:08,541
As all of my family
and friends know,

4
00:00:08,541 --> 00:00:10,743
I love to run when I'm on earth.

5
00:00:10,743 --> 00:00:12,478
Luckily we have the
capability to run here

6
00:00:12,478 --> 00:00:13,612
on the Space Station too.

7
00:00:13,612 --> 00:00:17,049
In fact, it's one of the
3 exercises that we do

8
00:00:17,049 --> 00:00:21,053
on a daily basis to help
keep our hearts and our bones

9
00:00:21,053 --> 00:00:23,389
and our muscles strong
while we're here

10
00:00:23,389 --> 00:00:24,557
without the gravity pull

11
00:00:24,557 --> 00:00:27,393
of earth affecting our
body every single day.

12
00:00:27,393 --> 00:00:30,096
So let me show you
how we do it here.

13
00:00:30,096 --> 00:00:33,365
This is our treadmill
and it's called T2.

14
00:00:33,365 --> 00:00:38,671
It's located in node 3 on the
International Space Station.

15
00:00:38,671 --> 00:00:43,309
You'll notice that the
treadmill can move.

16
00:00:43,309 --> 00:00:45,611
It's on a vibration
isolation system like all

17
00:00:45,611 --> 00:00:48,013
of our exercise equipment is.

18
00:00:48,013 --> 00:00:52,384
And the reason is because there
are a lot of loads when you run

19
00:00:52,384 --> 00:00:56,355
on a treadmill and we really
don't want to impart those loads

20
00:00:56,355 --> 00:00:59,024
onto the Space Station.

21
00:00:59,024 --> 00:01:01,127
So we have all of our
exercise equipment

22

00:01:01,127 --> 00:01:05,064
on vibration isolation systems.

23
00:01:05,064 --> 00:01:09,635
Obviously in space, we
need something to keep us

24
00:01:09,635 --> 00:01:18,711
on the ground when
we're running.

25
00:01:23,749 --> 00:01:32,825
What we use is a harness
which is very much

26
00:01:38,264 --> 00:01:46,605
like a backpacking harness
and the straps are adjusted

27
00:01:46,605 --> 00:01:49,875
so that the load is
evenly distributed

28
00:01:49,875 --> 00:01:52,978
between your shoulders
and your hips just

29
00:01:52,978 --> 00:01:54,180
as if you were backpacking.

30
00:01:54,180 --> 00:01:56,916
We attach by these rings
the harness to a system

31
00:01:56,916 --> 00:01:58,217
of hooks and bungee cords.

32
00:01:58,217 --> 00:01:58,984
As you can see there's some
stretch in the bungee cord

33
00:01:58,984 --> 00:02:00,119
and then we can adjust

34
00:02:00,119 --> 00:02:00,953
and change the number
of hooks that we use.

35
00:02:00,953 --> 00:02:02,321
Today I'm going to use 4 hooks.

36
00:02:02,321 --> 00:02:03,522
If I were to use 3 hooks it
would ride a little more load.

37
00:02:03,522 --> 00:02:04,823
If I used 5 hooks it would
be a little less load.

38
00:02:04,823 --> 00:02:05,824
And then in that way we can
adjust the amount of load

39
00:02:05,824 --> 00:02:06,792
on our body as we're running.

40
00:02:06,792 --> 00:02:07,560
The T2 is controlled
by our laptop

41
00:02:07,560 --> 00:02:08,627
in front of the treadmill.

42
00:02:08,627 --> 00:02:09,328
And once I'm all
strapped in I can go ahead

43
00:02:09,328 --> 00:02:10,529
and select a protocol.

44
00:02:10,529 --> 00:02:11,230
Our trainers on the ground
get protocols assigned

45
00:02:11,230 --> 00:02:11,931
for us that we can use.

46
00:02:11,931 --> 00:02:13,032
Load up the protocol.

47
00:02:13,032 --> 00:02:14,166
This is an interval
protocol that I can do.

48
00:02:14,166 --> 00:02:14,867
And now you can see that
there's a target load.

49
00:02:14,867 --> 00:02:16,068
The target that the --

50
00:02:16,068 --> 00:02:17,036
my trainers wanted me to
reach was 100 pound load.

51
00:02:17,036 --> 00:02:17,870
There are load cells
in the treadmill

52
00:02:17,870 --> 00:02:19,271
and that's how it determining.

53
00:02:19,271 --> 00:02:20,272
And you can see with the 4 hooks
that I put on it's pretty close

54
00:02:20,272 --> 00:02:21,507
to what the target load is.

55
00:02:21,507 --> 00:02:24,076
[Background sounds]

56
00:02:24,076 --> 00:02:24,843
Click okay.

57
00:02:24,843 --> 00:02:26,645
And then I'm ready to run.

58
00:02:26,645 --> 00:02:30,616
See we also have
heart rate on display.

59
00:02:30,616 --> 00:02:34,153
We wear heart rate
monitors and this is when --

60
00:02:34,153 --> 00:02:37,656
once I push start the
treadmill belt will start moving

61
00:02:37,656 --> 00:02:41,527
and I'll just follow
the protocol.

62
00:02:41,527 --> 00:02:50,603
[Music]

63
00:03:11,023 --> 00:03:12,424
That was a great run.

64
00:03:12,424 --> 00:03:14,827
Not quite the same as being out
in the fresh air with the wind