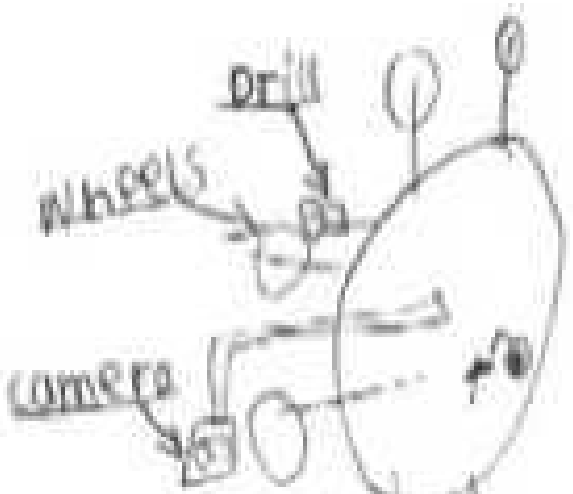
I Have an idea How
To rescue the Spirit rover.



Dear JPL
Put the camera arm down and use it
as a Tripod To lift the rover up.

Julian

age 7

1
00:00:11,720 --> 00:00:09,440
I'm Ashley one of the drivers for the

2
00:00:14,079 --> 00:00:11,730
Mars rovers spirit and opportunity and

3
00:00:16,070 --> 00:00:14,089
I'm here with the latest rover update

4
00:00:18,859 --> 00:00:16,080
Spirit has been having some real

5
00:00:21,200 --> 00:00:18,869
challenges lately after making some good

6
00:00:23,689 --> 00:00:21,210
progress towards her science target von

7
00:00:26,540 --> 00:00:23,699
Braun hill and Goddard depression she

8
00:00:29,359 --> 00:00:26,550
slipped into some loose soft soil and is

9
00:00:31,400 --> 00:00:29,369
now partly embedded this embedding is

10
00:00:33,229 --> 00:00:31,410
made even more complicated by the fact

11
00:00:35,420 --> 00:00:33,239
that the rover is at a sharp tilt to the

12
00:00:37,910 --> 00:00:35,430
side and there are some rocks underneath

13
00:00:39,889 --> 00:00:37,920

the rover one of these rocks may be

14
00:00:41,500 --> 00:00:39,899
contacting the belly of the rover and

15
00:00:44,450 --> 00:00:41,510
causing us some additional friction

16
00:00:47,029 --> 00:00:44,460
another one may be wedged against the

17
00:00:50,000 --> 00:00:47,039
left middle wheel and be the cause of a

18
00:00:52,100 --> 00:00:50,010
recent stall we saw on that wheel the

19
00:00:53,990 --> 00:00:52,110
team is doing a lot of analysis and

20
00:00:56,569 --> 00:00:54,000
ground-based testing to try to

21
00:00:58,880 --> 00:00:56,579
understand spirit situations and figure

22
00:01:00,889 --> 00:00:58,890
out how best to get her out of it the

23
00:01:03,260 --> 00:01:00,899
public has been giving us tremendous

24
00:01:06,140 --> 00:01:03,270
support many of you have even sent us

25
00:01:08,840 --> 00:01:06,150
ideas on how to get spirit out including

26
00:01:11,390 --> 00:01:08,850
this idea then to us by seven year old

27
00:01:14,870 --> 00:01:11,400
Julian to use the robotic arm to help

28
00:01:17,179 --> 00:01:14,880
lift us out while the robotic arm isn't

29
00:01:19,820 --> 00:01:17,189
strong enough to lift the rover even on

30
00:01:22,010 --> 00:01:19,830
Mars we are putting it to good use we

31
00:01:24,590 --> 00:01:22,020
recently used the microscopic camera on

32
00:01:26,840 --> 00:01:24,600
the arm take pictures underneath the

33
00:01:28,249 --> 00:01:26,850
rover we're seeing parts of the vehicles

34
00:01:30,679 --> 00:01:28,259
that haven't been seen since she left

35
00:01:32,690 --> 00:01:30,689
Earth six years ago but most importantly

36
00:01:35,450 --> 00:01:32,700
we're now able to have a much better

37
00:01:36,830 --> 00:01:35,460
understanding of spirit situation and

38
00:01:38,719 --> 00:01:36,840

we're going to put that to really good

39
00:01:41,630 --> 00:01:38,729
used when we figure out how to get her

40
00:01:44,300 --> 00:01:41,640
out happily spiritus also had some

41
00:01:46,399 --> 00:01:44,310
really great surprises recently she's

42
00:01:48,429 --> 00:01:46,409
had several dust cleaning events of her

43
00:01:52,490 --> 00:01:48,439
solar panels courtesy of the Martian win

44
00:01:54,289 --> 00:01:52,500
for solar panels which were 75% covered

45
00:01:56,959 --> 00:01:54,299
with dust only two months ago are now

46
00:01:58,850 --> 00:01:56,969
less than twenty percent covered her

47
00:02:01,190 --> 00:01:58,860
power levels have increased to more than

48
00:02:03,800 --> 00:02:01,200
four times the minimum we saw during

49
00:02:05,690 --> 00:02:03,810
winter this gives her a much better

50
00:02:08,600 --> 00:02:05,700
chance of reaching her neck science

51
00:02:11,420 --> 00:02:08,610
target and surviving get a fourth winter

52
00:02:13,070 --> 00:02:11,430
on Mars meanwhile on the other side of

53
00:02:13,550 --> 00:02:13,080
the planet opportunity is doing quite

54
00:02:15,320 --> 00:02:13,560
well

55
00:02:17,690 --> 00:02:15,330
and making great progress towards

56
00:02:20,420 --> 00:02:17,700
endeavor crater in the southeast T's

57
00:02:25,280 --> 00:02:20,430
even reached a major milestone on Saul

58
00:02:26,830 --> 00:02:25,290
1899 she passed a ten mile mark now we

59
00:02:28,940 --> 00:02:26,840
are seeing some slightly elevated

60
00:02:31,100 --> 00:02:28,950
electrical currents on the right front

61
00:02:32,750 --> 00:02:31,110
wheel but we've developed some

62
00:02:35,000 --> 00:02:32,760
strategies that seem to keep those

63
00:02:37,490 --> 00:02:35,010

current flow we're driving sometimes

64
00:02:39,440 --> 00:02:37,500
forward and sometimes backwards we also

65
00:02:42,199 --> 00:02:39,450
are taking shorter drives and taking

66
00:02:43,850 --> 00:02:42,209
more extended rest between drive in the

67
00:02:46,340 --> 00:02:43,860
next couple of weeks we have a big

68
00:02:48,500 --> 00:02:46,350
decision to make this decision involves

69
00:02:50,270 --> 00:02:48,510
whether to take a shorter path that goes

70
00:02:52,880 --> 00:02:50,280
through some very tall stand ripples or

71
00:02:55,160 --> 00:02:52,890
a longer path that takes us more safely

72
00:02:57,500 --> 00:02:55,170
around though triple we could be

73
00:02:59,870 --> 00:02:57,510
reaching and ever crater as early as the

74
00:03:02,300 --> 00:02:59,880
fall of 2010 and we really look forward

75
00:03:04,100 --> 00:03:02,310
to seeing what we discover there I'm