



1
00:00:10,000 --> 00:00:21,990
hmm

2
00:00:27,269 --> 00:00:24,950
three billion miles away from earth

3
00:00:29,830 --> 00:00:27,279
near the farthest reaches of our solar

4
00:00:33,190 --> 00:00:29,840
system is the heavenly body with an

5
00:00:34,389 --> 00:00:33,200
extreme orbit known for 76 years as

6
00:00:39,990 --> 00:00:34,399
pluto

7
00:00:43,990 --> 00:00:40,000
was considered the ninth planet in our

8
00:00:46,470 --> 00:00:44,000
solar system until 2006 when after much

9
00:00:48,950 --> 00:00:46,480
debate it was reclassified by the

10
00:00:51,430 --> 00:00:48,960
international astronomical union as a

11
00:00:52,229 --> 00:00:51,440
dwarf planet officially dropping its

12
00:00:54,389 --> 00:00:52,239
name

13
00:00:55,830 --> 00:00:54,399

for a number well it certainly doesn't

14

00:00:58,470 --> 00:00:55,840

affect pluto

15

00:00:59,910 --> 00:00:58,480

pluto is the same thing it was before it

16

00:01:01,910 --> 00:00:59,920

was discovered

17

00:01:03,830 --> 00:01:01,920

before it was given the name and before

18

00:01:06,630 --> 00:01:03,840

the name was changed

19

00:01:08,950 --> 00:01:06,640

nor does pluto's reclassification change

20

00:01:10,870 --> 00:01:08,960

the importance of nasa's first mission

21

00:01:13,750 --> 00:01:10,880

to study it

22

00:01:16,789 --> 00:01:13,760

we have ignition and liftoff of nasa's

23

00:01:20,149 --> 00:01:16,799

new horizons spacecraft on a decade

24

00:01:22,870 --> 00:01:20,159

launched in january 2006 a thousand

25

00:01:25,350 --> 00:01:22,880

pound new horizon spacecraft will travel

26
00:01:27,190 --> 00:01:25,360
through space for nine and a half years

27
00:01:29,429 --> 00:01:27,200
before meeting up with pluto in the

28
00:01:32,310 --> 00:01:29,439
summer of 2015.

29
00:01:33,590 --> 00:01:32,320
the last time pluto was in this position

30
00:01:35,990 --> 00:01:33,600
in its orbit

31
00:01:38,950 --> 00:01:36,000
was during the french and indian war it

32
00:01:40,870 --> 00:01:38,960
takes 248 earth years to travel around

33
00:01:43,670 --> 00:01:40,880
its orbit and come back to the same

34
00:01:45,429 --> 00:01:43,680
place again at the speed of light

35
00:01:47,350 --> 00:01:45,439
sending a radio signal back from the

36
00:01:49,190 --> 00:01:47,360
spacecraft from pluto to earth it will

37
00:01:51,350 --> 00:01:49,200
take four and a half hours

38
00:01:54,870 --> 00:01:51,360

operating on less power than a pair of

39

00:01:56,950 --> 00:01:54,880

common 100 watt light bulbs new horizons

40

00:02:00,469 --> 00:01:56,960

will map the highest interest areas of

41

00:02:03,109 --> 00:02:00,479

pluto to a resolution of 50 meters less

42

00:02:04,950 --> 00:02:03,119

than the length of a football field 3

43

00:02:06,870 --> 00:02:04,960

billion miles away

44

00:02:09,430 --> 00:02:06,880

it'll then move on to survey pluto's

45

00:02:12,309 --> 00:02:09,440

neighborhood the atmosphere ancient

46

00:02:15,270 --> 00:02:12,319

materials and small bodies of the kuiper

47

00:02:17,910 --> 00:02:15,280

belt a chaotic region astrophysicists

48

00:02:21,110 --> 00:02:17,920

believe can tell us how earth the

49

00:02:23,350 --> 00:02:21,120

planets even our sun were made

50

00:02:25,750 --> 00:02:23,360

we have primitive material

51

00:02:28,150 --> 00:02:25,760

chunks of rock and ice

52

00:02:30,470 --> 00:02:28,160

millions of objects out there in the

53

00:02:32,309 --> 00:02:30,480

kuiper belt and

54

00:02:35,270 --> 00:02:32,319

we know very little about it we didn't

55

00:02:37,830 --> 00:02:35,280

discover it until 1992.

56

00:02:40,309 --> 00:02:37,840

traveling three billion miles to frozen

57

00:02:44,150 --> 00:02:40,319

rocky pluto and its environs new

58

00:02:46,070 --> 00:02:44,160

horizons is in a way going back in time

59

00:02:48,790 --> 00:02:46,080

to the chemical building blocks of the

60

00:02:50,710 --> 00:02:48,800

solar system and life

61

00:02:56,150 --> 00:02:50,720

to learn more about the new horizons