



1
00:00:05,829 --> 00:00:03,110
hi i'm peter cullen the voice of

2
00:00:08,470 --> 00:00:05,839
transformers optimus prime

3
00:00:10,790 --> 00:00:08,480
during the last 24 years

4
00:00:12,629 --> 00:00:10,800
nasa's hubble space telescope has

5
00:00:14,549 --> 00:00:12,639
brought the wonders of the universe to

6
00:00:17,029 --> 00:00:14,559
us here on earth

7
00:00:19,750 --> 00:00:17,039
but as powerful as hubble is

8
00:00:22,710 --> 00:00:19,760
there are secrets about the cosmos that

9
00:00:25,029 --> 00:00:22,720
even it cannot reveal

10
00:00:27,349 --> 00:00:25,039
to unlock those secrets

11
00:00:28,870 --> 00:00:27,359
nasa is building hubble's scientific

12
00:00:32,470 --> 00:00:28,880
successor

13
00:00:35,430 --> 00:00:32,480

the james webb space telescope

14

00:00:38,229 --> 00:00:35,440

webb will be much larger than hubble

15

00:00:41,270 --> 00:00:38,239

so large that it must be folded to fit

16

00:00:42,950 --> 00:00:41,280

into its rocket for launch

17

00:00:45,990 --> 00:00:42,960

once in orbit

18

00:00:49,430 --> 00:00:46,000

one million miles from earth

19

00:00:53,350 --> 00:00:49,440

webb will transform into an observatory

20

00:00:56,950 --> 00:00:53,360

with a tennis court-sized sun shield

21

00:00:59,349 --> 00:00:56,960

and 21 foot wide primary mirror

22

00:01:02,709 --> 00:00:59,359

from a million miles away

23

00:01:04,869 --> 00:01:02,719

webb will be able to peer back in time

24

00:01:08,149 --> 00:01:04,879

to see the universe light up with its

25

00:01:11,190 --> 00:01:08,159

first stars and galaxies

26

00:01:13,109 --> 00:01:11,200

witness galaxies evolve across cosmic

27

00:01:15,830 --> 00:01:13,119

time

28

00:01:18,550 --> 00:01:15,840

and even explore the atmospheres

29

00:01:21,590 --> 00:01:18,560

of alien worlds

30

00:01:24,469 --> 00:01:21,600

the james webb space telescope