



1
00:00:06,869 --> 00:00:05,269
there was a scene at the very end

2
00:00:09,509 --> 00:00:06,879
where there's two arm wrestlers

3
00:00:13,110 --> 00:00:09,519
struggling with everything they have

4
00:00:14,789 --> 00:00:13,120
the camera focuses in on his face

5
00:00:17,349 --> 00:00:14,799
and as he was sitting there in slow

6
00:00:19,590 --> 00:00:17,359
motion struggling with everything he had

7
00:00:21,429 --> 00:00:19,600
i had the epiphany that i had never

8
00:00:23,830 --> 00:00:21,439
worked that hard

9
00:00:25,429 --> 00:00:23,840
even for a moment and i decided right

10
00:00:27,509 --> 00:00:25,439
then and there that i was going to go

11
00:00:29,509 --> 00:00:27,519
back to college i was going to pick the

12
00:00:39,830 --> 00:00:29,519
hardest major that i had enjoyed and i

13
00:00:45,190 --> 00:00:42,389

a traditional definition of what an

14

00:00:46,869 --> 00:00:45,200

instrument manager does is to make sure

15

00:00:48,069 --> 00:00:46,879

that the instrument does what it says

16

00:00:49,830 --> 00:00:48,079

it's going to do so we meet our

17

00:00:51,750 --> 00:00:49,840

technical requirements

18

00:00:54,229 --> 00:00:51,760

it's that it's delivered on schedule and

19

00:00:56,229 --> 00:00:54,239

within cost i think the most powerful

20

00:00:58,630 --> 00:00:56,239

tool in an engineer's toolbox is the

21

00:01:01,029 --> 00:00:58,640

ability to break really complex problems

22

00:01:02,790 --> 00:01:01,039

down into smaller and smaller pieces

23

00:01:06,469 --> 00:01:02,800

until it's down to a piece that one

24

00:01:08,149 --> 00:01:06,479

person can manage in a day or in an hour

25

00:01:11,830 --> 00:01:08,159

one of the pieces that it's divided down

26

00:01:13,830 --> 00:01:11,840

into is the wide field camera 3.

27

00:01:15,910 --> 00:01:13,840

divide that down into small pieces i

28

00:01:17,590 --> 00:01:15,920

need an electrical engineer to make sure

29

00:01:19,670 --> 00:01:17,600

that all of the circuitry works and then

30

00:01:21,830 --> 00:01:19,680

all the power goes to the right places i

31

00:01:22,630 --> 00:01:21,840

need a mechanical engineer who is going

32

00:01:24,070 --> 00:01:22,640

to

33

00:01:26,469 --> 00:01:24,080

build the structure that holds all of

34

00:01:29,510 --> 00:01:26,479

this stuff i need an optics engineer we

35

00:01:31,030 --> 00:01:29,520

need detectors and my job is really to

36

00:01:33,270 --> 00:01:31,040

break that down

37

00:01:35,590 --> 00:01:33,280

you know what what does it mean to to

38

00:01:42,550 --> 00:01:35,600

build a thousand pounds of hardware

39

00:01:45,990 --> 00:01:44,149

i got the kind of job she can get

40

00:01:48,230 --> 00:01:46,000

without a college education and without

41

00:01:49,510 --> 00:01:48,240

any motivation and being a young kid

42

00:01:51,510 --> 00:01:49,520

i needed to work on something that

43

00:01:53,190 --> 00:01:51,520

mattered to me that i needed to feel a

44

00:01:55,670 --> 00:01:53,200

personal connection

45

00:01:58,469 --> 00:01:55,680

with making an investment in in the

46

00:02:05,830 --> 00:01:58,479

future in humanity's future

47

00:02:10,469 --> 00:02:08,550

i found out that when it matters to me

48

00:02:12,710 --> 00:02:10,479

and when i feel like i'm i'm being a

49

00:02:15,589 --> 00:02:12,720

part of big something bigger than myself

50

00:02:18,630 --> 00:02:15,599

and i'm willing to try as hard as i can

51

00:02:20,550 --> 00:02:18,640

nothing can stand in my way

52

00:02:22,710 --> 00:02:20,560

no matter what it is that you're facing

53

00:02:24,869 --> 00:02:22,720

in your life the peace that is standing

54

00:02:25,990 --> 00:02:24,879

between you and your dream

55

00:02:28,070 --> 00:02:26,000

is you

56

00:02:30,070 --> 00:02:28,080

and that anybody can make a choice in

57

00:02:32,229 --> 00:02:30,080

their life to go after what matters to

58

00:02:33,910 --> 00:02:32,239

them to get the skills that they need to

59

00:02:35,830 --> 00:02:33,920

go after what matters to them and they

60

00:02:38,309 --> 00:02:35,840

can get there because if i'm here