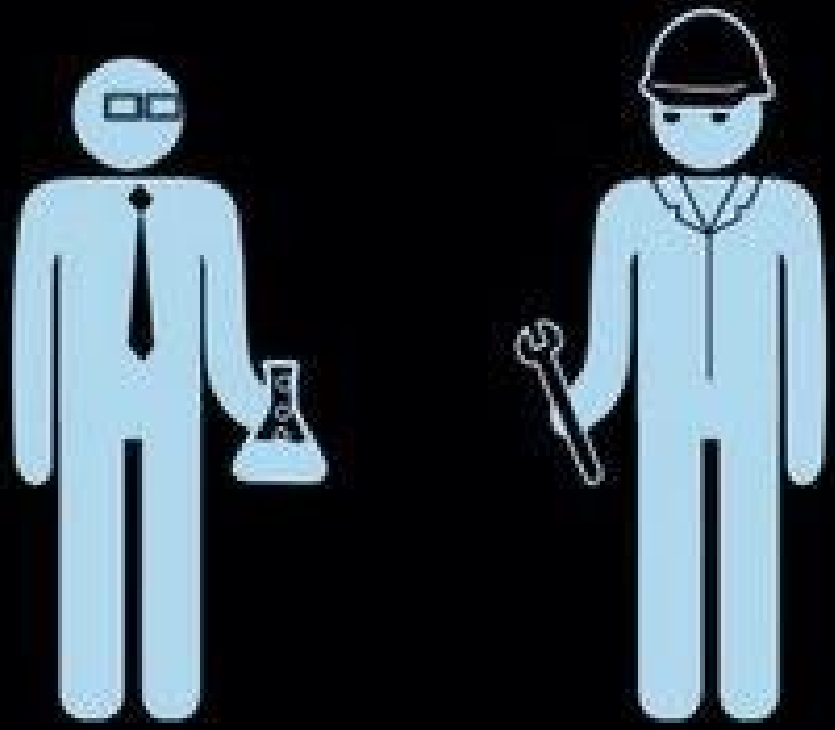

1
00:00:00,020 --> 00:00:04,090
[music] Narrator: Say you want to send a satellite from Earth--all

2
00:00:04,110 --> 00:00:08,130
the way to Mars! Now, it's got to get there without running out of gas, malfunctioning,

3
00:00:08,150 --> 00:00:12,190
or otherwise causing trouble. And if that's not enough, it's also got to sample things and

4
00:00:12,210 --> 00:00:16,200
send the results back to Earth. Now, that being said, it seems obvious that you

5
00:00:16,220 --> 00:00:20,290
can't just go building satellites all willy-nilly. Satellites are expensive little things,

6
00:00:20,310 --> 00:00:24,370
and you need to make sure that all your plans will work before you run out of money. This

7
00:00:24,390 --> 00:00:28,400
is why, before building anything, scientists and engineers hold what looks like an endless series of

8
00:00:28,420 --> 00:00:32,450
meetings, phone calls, telecons, tag-ups, and get-togethers, culminating in what's known

9
00:00:32,470 --> 00:00:36,470
as a design review. Take, for example, the MAVEN spacecraft.

10
00:00:36,490 --> 00:00:40,660
Now, it's a great idea for a satellite--one that studies the upper atmosphere of Mars--

11
00:00:40,680 --> 00:00:44,840
but, of course, it's not good enough just to have a great idea. It needs to be reviewed,

12
00:00:44,860 --> 00:00:49,010
just like anything else. At this review, a whole lot of other smart people

13
00:00:49,030 --> 00:00:53,180

take a good, long look at the design, and hopefully, they decide they like it. If all goes

14
00:00:53,200 --> 00:00:57,260
well, they think that everything makes sense, the budget is in line, there isn't substantial risk

15
00:00:57,280 --> 00:01:01,460
involved, and now, we can move on to the next step. And once you've finished, you'll

16
00:01:01,480 --> 00:01:05,670
finally be able to get all the data you wanted...without any trouble.

17
00:01:05,690 --> 00:01:09,860
[silence, radio beeping]