
NASA
SLS
SPACE LAUNCH SYSTEM
ALEX MATRAS
SOFTWARE DEVELOPER

1
00:00:00,100 --> 00:00:02,967
Hi, I'm Alex Matras, a software developer at Marshall Space Flight Center

2
00:00:03,051 --> 00:00:04,284
in Huntsville Alabama.

3
00:00:04,289 --> 00:00:06,356
This is Rocket Science in 60 seconds.

4
00:00:08,557 --> 00:00:11,324
The avionics are the brains behind
the Space Launch System rocket.

5
00:00:11,407 --> 00:00:13,007
They are the computers and
electrical systems that

6
00:00:13,060 --> 00:00:16,260
fly, track, guide, and steer the vehicle
throughout it's launch and flight.

7
00:00:18,187 --> 00:00:21,154
The avionics make the rocket fly by guiding
and directing all of it's thrust power.

8
00:00:21,454 --> 00:00:23,706
The rocket launches with more than 8 million

9
00:00:23,707 --> 00:00:25,507
pounds of of thrust power
from it's engines and boosters

10
00:00:25,769 --> 00:00:27,736
--- and with the help of it's brains.

11
00:00:30,044 --> 00:00:33,077
We present the flight computers
with 1000's of scenarios

12
00:00:33,089 --> 00:00:34,545
that detect all different types of calls

13
00:00:34,546 --> 00:00:36,846
and still make sure the vehicle flies safely.

14
00:00:36,936 --> 00:00:38,903
We can't run that many test on actual hardware

15
00:00:38,918 --> 00:00:40,685
so these scenarios are very valuable.

16
00:00:43,236 --> 00:00:44,736
Using the software I help write,

17
00:00:44,756 --> 00:00:47,756
I get to watch the SLS rocket launch nearly every day.