## **INTRODUCTION TO SPACEX**



SpaceX designs, manufactures and launches advanced rockets and spacecraft. The company was founded in 2002 to revolutionize space technology, with the ultimate goal of enabling people to live on other planets.





International Traffic in Arms Regulations (ITAR) is a set of United States government regulations that control the export and import of defense-related articles and services on the United States Munitions List (USML).

For practical purposes, ITAR regulations dictate that information and material pertaining to defense and military related technologies (for items listed on the U.S. Munitions List) may only be shared with U.S. Persons unless authorization from the Department of State is received or a special exemption is used. U.S. Persons (including organizations) can face heavy fines if they have, without authorization or the use of an exemption, provided foreign (non-US) persons with access to ITARprotected defense articles, services or technical data.



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### **Our Mission**



"Ultimately, the thing that is super important in the grand scale of history is, are we on a path to becoming a multi-planet species or not? If we're not, that's not a very bright future. We'll just be hanging out on Earth until some eventual calamity claims us." – Elon Musk

http://www.cnet.com/news/elon-musk-humans-should-be-multi-planet-species/

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### Elon Musk



"I would like to die on Mars; just not on impact."





### Linux

 Linux is used on the primary flight computers for all our current vehicles, Dragon (the spacecraft), Falcon (the rocket) as well as our test vehicles and ground infrastructure.



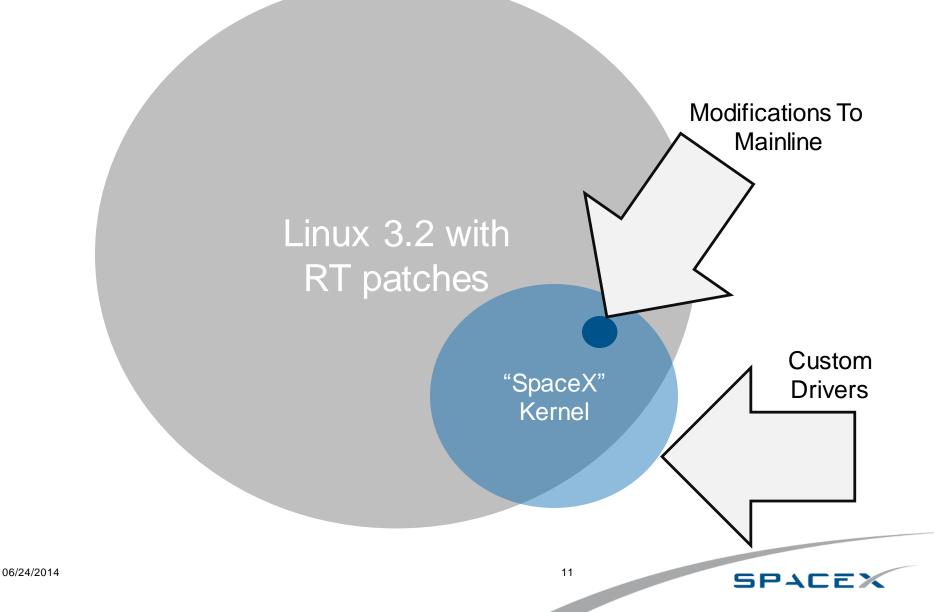
### Our use of Linux

#### Linux 3.2 with RT patches

"SpaceX" Kernel



### Our use of Linux



## **Sources For More Information**

#### Corporate Website:

http://www.spacex.com/

#### A lessons learned article:

http://lwn.net/Articles/540368/

#### Our use of Linux in spacecraft:

https://events.linuxfoundation.org/images/stories/pdf/lcna co2012 gruen.pdf

#### Overview of our system architecture:

http://aviationweek.com/blog/dragons-radiation-tolerant-design

#### Video animation of our next generation vehicle:

http://youtu.be/Cf -g3UWQ04



