

NASA plans giant deep space rocket

The Space Launch System (SLS) – designed to carry astronauts to the moon, Mars and other destinations – will be the most powerful launcher ever built. The SLS will have a greater lift capacity than the Saturn V rocket which carried men to the Moon

U.S. LAUNCH SYSTEMS

Saturn V
1967-73

Height
111m

Lift capacity
118,000kg



Space Shuttle
1981-2011

Height
56m

Lift capacity
22,500kg



SLS

First launch scheduled by end of 2017

Height
122m

Lift capacity
130,000kg

Project cost
\$18bn by 2017



Rocket

Based on space shuttle's liquid hydrogen and liquid oxygen engines and fuel tanks, coupled initially with upgraded solid-fuel shuttle boosters

Main stage
Five RS-25D/E engine

Solid boosters



MULTI-PURPOSE CREW VEHICLE

Launch abort system

Propels crew module to safety in case of emergency early in flight

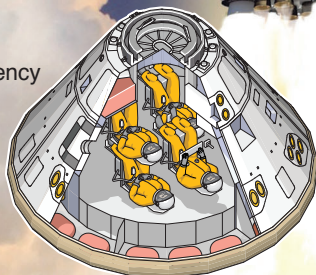
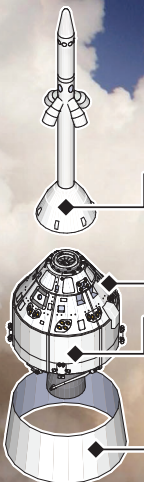
Crew module

Service module

Carries main rocket engine, solar panels, and provides oxygen to astronauts

Spacecraft adapter

Attaches vehicle to booster



Crew vehicle: Similar to Apollo module, can carry four astronauts