

# NASA to launch “dream machine” to Mars

NASA is to launch the most sophisticated robot vehicle ever built to explore Mars for signs of previous life. *Curiosity* – known formally as the *Mars Science Laboratory* – is a \$2.5 billion state-of-the-art rover equipped with a tool kit for analyzing Martian rocks and soil

## Mission launch

Nov 25-Dec 18, 2011

## Arrival: Aug 2012

**Length:** At least one Martian year (equal to 23 Earth months)

## CURIOSITY ROVER

SUV-sized vehicle dwarfs NASA's last Mars rovers, *Spirit* and *Opportunity*.  
Length 3m

## Mobility

Wheels 50cm diameter, each with its own motor. Rover can climb 45° slope. Top speed 4cm per second

## ChemCam

Fires laser beam at small patch of rock. Vaporized material is analyzed to identify composition

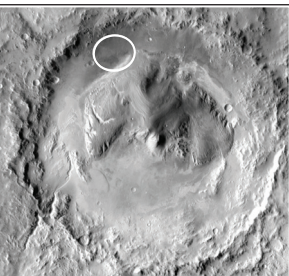
Navigation cameras

**Robot arm**  
Extends 2.3m

Height  
2.2m

High-gain antenna

**Turret:** Contains magnifying camera, element-identifying spectrometer and tools for gathering rock samples



**Landing site:** 150km-wide *Gale crater* contains multiple geological layers

