



SPACE ANALYSIS AND RECONNAISSANCE SYSTEM

EUROPA EXTRATERRESTRIAL LIFE SURVEY INTEGRATED PRODUCT TEAM 2011

MISSION

DEVELOP AN ORBITER AND LANDER TO BE SENT TO THE JOVIAN MOON OF EUROPA.

MAIN SCIENCE OBJECTIVES:

- MAP THE SURFACE OF EUROPA
- SAMPLE ICE ON THE SURFACE AND SEARCH FOR SIGNS OF PAST OR PRESENT LIFE
- INVESTIGATE GEOLOGIC ACTIVITY AND ITS DRIVING PROCESSES

Mission Characteristics	
Launch on Atlas V 551 Launch	Map surface and perform scientific analysis from the orbiter
Utilize a VEEGA Maneuver to reach Europa	Verify the presence of a subsurface ocean below Europa's ice shell
Follow the trajectory designed for the Jupiter Europa Orbiter	Deploy lander to the surface of Europa
Settle into a 100 km polar circular orbit of Europa	Gather ice samples and analyze the composition

Science Mission
Objectives and Goals developed by Principle Investigator at the College of Charleston
Suite of 13 Science Instruments
Focus on finding signs of life on Europa

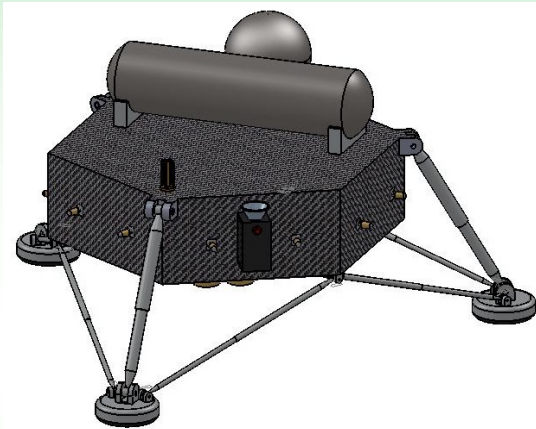
Partnerships	
The University of Alabama in Huntsville	Mission Design Designed Lander
College of Charleston	Scientific Investigation
ESTACA	Designed Spacecraft
California State University Los Angeles	Designed Ice Coring Drill

ORBITER

DESIGNED BY STUDENTS AT ESTACA UNIVERSITY IN PARIS, FRANCE
WILL CARRY THE LANDER TO EUROPA
PERFORMS SURFACE MAPPING AND INVESTIGATES POSSIBILITY OF A SUBSURFACE OCEAN

LANDER

DESIGNED BY THE UNIVERSITY OF ALABAMA IN HUNTSVILLE
GATHERS SAMPLES OF EUROPA'S SURFACE TO DETERMINE COMPOSITION
PERFORMS SCIENTIFIC ANALYSIS TO SEARCH FOR SIGNS OF PAST OR PRESENT LIFE



ICE CORING DRILL

DESIGNED BY STUDENTS AT CALIFORNIA STATE UNIVERSITY LOS ANGELES
EXTRACTS SHALLOW ICE SAMPLES FROM BELOW THE SURFACE OF EUROPA
UTILIZES A HOLLOW THREE BLADED CUTTING HEAD TO EXTRACT ICE SAMPLES

