



TOPIC # - TDC - 108

RADIATION TOLERANT MOTOR CONTROLLER

BACKGROUND

This challenge involves designing and demonstrating a power controller using radiation-tolerant transistors. The controller could function as a motor controller, remote power controller, or DC-DC converter. Students will need to consider thermal management, voltage ranges, and wattage, designing a system that can operate effectively in a vacuum with reduced or zero gravity.

DELIVERABLES

A report explaining design considerations, observations, testing, and test results.

DESIGN TEAM PROFILE

NASA MENTOR:	Chatwin Lansdowne (chatwin.lansdowne-1@nasa.gov)
LEVEL:	Undergraduate students of any level
MAJOR/DISCIPLINE:	Electrical Engineering, Electro-Mechanical Engineering
TEAMS:	2
DURATION:	One or Two-Semester Project

