**Mission Objectives**
- 72.39 mm Diameter maximum
- 279.4 mm maximum Length
- 500 g maximum weight
- Seven minute maximum descent time
- 4.6 m/s maximum decent rate
- Altitude transmission every 5 s
- Upright within ten minutes of landing

**Mission sequence of Events**
- Satellite activated
- Loaded into rocket
- Take initial pressure reading
- Rocket launch
- Satellite detects pressure change, starts sending pressure data
- Satellite ejected from rocket
- Parachute deploys, slowing descent
- Satellite descends at less than 4.6 m/s
- Transmits pressure readings
- Satellite lands
- Doors open, uprighting satellite
- Parachute released
- Buzzer activated
- Data transmission stops

**Printed Circuit Board**
- Transceiver
- Transmits data from satellite to ground station

**Finite Element Analysis**
- Stress for 421N force downward on the top of shell MAX = 12.15 MPa
- Displacement for 421N force, side loading from the right MAX = 7.25 mm
- Displacement for 100N force pulling on the parachute mount stanchion MAX = 1.64 mm

**Door Restraining Pin**
- When engaged, fits in eyeholes on doors locking them in the closed position

**Servo Motor**
- When activated, pulls pin to allow doors to open

**Buzzer**
- Audible alarm to aid in satellite recovery

**Doors**
- Springs open doors when released, uprighting satellite

**Parachute Release Pin**
- Holds parachute in place when doors closed
- Releases parachute when doors open

**Removable Tray**
- Holds:
  - Printed Circuit Board
  - Transceiver
  - Servo