

## STRUCTURES INPUT - 1

**MISSION** → **STRUCTURES**

Macro input	INPUT
FAIRING DIMENSIONS	Min length
	Min. width
	Min. height
	Tot. Volume
Launcher Maximum Payload Mass	Maximum weight
Dynamic loads	First Longitudinal frequency
	First Lateral frequency
	Max Longitudinal Dyn acceleration
	Max lateral Dyn + Static acceleration
Static Loads	Max longitudinal static acceleration

**PAYLOAD** → **STRUCTURES**

Macro input	INPUT
FAIRING DIMENSIONS	Min length
	Min. width
	Min. height
	Tot. Volume
Launcher Maximum Payload Mass	Maximum weight
Dynamic loads	First Longitudinal frequency
	First Lateral frequency
	Max Longitudinal Dyn acceleration
	Max lateral Dyn + Static acceleration
Static Loads	Max longitudinal static acceleration

## STRUCTURES INPUT - 2

**PROPULSION → STRUCTURES**

Macro input	INPUT	
Tanks	Number of fuel tank	Number of pressurized tanks
	Fuel tank length	P Tanks length
	Fuel tank width	P Tanks width
	Fuel tank height	P Tanks height
	Fuel tank dry Mass	P Tanks Dry Mass
	Dry Mass margin	P Tanks Dry Mass margin
	Fuel tank wet Mass	P Tanks Wet Mass
	Wet Mass margin	P Tanks Wet Mass margin

**TCS → STRUCTURES**

Macro input	INPUT
Radiative elements	Number
	Dimensions
	Mass
	Mass Margin
	Positions suggested
	Postions forbidden

## STRUCTURES INPUT - 3

### POWER → STRUCTURES

Macro input	INPUT
Dimensions	length <sub>i</sub>
	width <sub>i</sub>
	height <sub>i</sub>
Mass	Mass <sub>i</sub>
	Mass margin
Suggested positions	Position

### AOCS → STRUCTURES

Macro input	INPUT	
Sensors and Actuators	Number	Mass Margin
	Dimensions	Positions suggested
	Mass	Positions forbidden

### TT&C → STRUCTURES

Macro output	OUTPUT
Equipment List	Number of items
	Mass per each item

### SYSTEM → STRUCTURES

Macro input	INPUT
Mass Budget	Preliminary mass budget

## STRUCTURES OUTPUT - 1

### STRUCTURES → AOCS

Macro output	OUTPUT
Mass distribution	Centrum Gravity position
	Inertia Momentums
Satellite dimensions	Satellite dimensions
	Mass margin
Mass	Dry Mass
	Wet Mass

### STRUCTURES → POWER

Macro output	OUTPUT
Dimensions	Array width
	Panel dimensions

### STRUCTURES → TCS

Macro output	OUTPUT
TC elements positions	Coordinates