

The DIY Competition – GalACSy 2013

Scenario:

Earth is on the brink of destruction. Our natural fuel sources have all been depleted and all other alternative energy sources are unable to provide for the billions of Earth's citizens. Governments are under great stress everywhere. Scientists and researchers of many famed organizations are cracking their brains, working tirelessly to find a solution. A source is recently discovered. This will be the answer to all our problems. It is so powerful that it will make nuclear reactors comparable to triple A batteries. But the only problem is the fuel in its usable form is incredibly rare and unstable. Thus NASA has invited the scientists from many organizations to follow through on an expedition to find the fuel around a planet that holds potential.

The task:

Design a mechanism to allow the rover to be delivered to the surface of the planet autonomously.

Method:

The rover that is to find the fuel is modeled by an egg.

Build a 'machine' that can drop an egg from a set height, and make sure it does not break. If it does not break, the team is awarded 20 points. Not only that, but the egg has to be free of any part of the machine after the 'soft' landing. If the egg is "deployed" they will earn 30 more points. After that, there will be a presentation in the CPA, where the teams are to try and sell their machines to the panel of judges. The presentation is worth 50 points, and will be based on creativity, feasibility and judge's appeal.

Unsuccessful drops are when fluid is flowing out of the egg after the landing.

Item	Quantity
Eggs	3
Newspaper Sheets	7 individual sheets
Styrofoam Plates	3
Cardboard Sheet	4
Chopsticks	2 pairs
String	3 meters
Straws	8
Rubber Bands	4
Duct Tape	1 roll
Scissors	2 pairs
Balloon	3
Plastic Bottle with Cap (500 ml)	1
Orange	1
Plastic Bag (Black)	1