

## Mars Lander

# **Description**

#### Category

- 1. Creative base
- 2. Energy
- 3. When you need more ideas

### **Tags**

1. Activity

#### **Meta Fields**

**Debriefing:** The following questions might be useful to ask after the exercise:

- Was it easy / difficult to come up with ideas?
- What ideas surprised you the most?
- How did you feel participating in such a collective task?

Source: The Art and Craft of Facilitating Learning Spaces, Kaospilot

**Outcomes:** To open young people's imagination and creativity.

Materials:

- Balloons
- Pipe cleaners
- masking tape (1 per team)
- Golf balls (for trials) 1 per team
- Raw egg (for final drop)

**Time:** 30' - 60'

**Methodology:** In order to keep sensitive equipment from breaking when landing on Mars, NASA engineers design soft packages to hold equipment that can withstand the force of the drop. Exercise: teams will design a Lander to protect a piece of highly sensitive equipment (raw egg). The teams can only use the following:

- Balloons
- Pipe cleaners
- masking tape (1 per team)
- Golf balls (for trials) 1 per team
- Raw egg (for final drop)

Optional: If you would like to make the challenge with more variables use the following. You can give a set amount of spending money or allow them to control their own spending) Participants can use as many balloons as you want to make your Lander. However, there is a cost efficiency factor to this project. Each balloon costs 200 EUR. Each pipe cleaner costs 100 EUR. Each egg costs 500 EUR. Whatever your team breaks, your team is "charged" for each item used. The Lander that saves the

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sensitive equipment and comes in with the lowest cost will be the winner. Option: have teams submit drawings of their final design, being sure to use dimensions as well as a list of items used. **Description:** In the exercise you divide young people in to a couple of groups of 4-6 participants. You

tell them that they work for NASA and that they have to use their imagination to build a Mars Lander. The exercise is design in such a way to open people's imagination and allow their creativity to flow. It is fun and on top of that helps to build teams and commitment.