

**TEAM**

EBEC Brno 2016, FINAL  
29<sup>th</sup> Februar – 9<sup>th</sup> March 2016



# CITY PARK CHALLENGE



# CTPark



## INTRODUCTION

Imagine it's a year 1849. Electrification is just a crazy idea of a few pioneers in a field of electric energy. You have escaped from Europe to the 'New' continent to find better life. As so, you have bought a piece of land and built a dock there. The ships are going in and off and you are slowly going out of workers. The load is becoming bigger and heavier so the only thing that can save your dock is a new machine. The magic machine built of the materials that are not expensive and you can obtain a lot of them. Wood and water. Your task is to make a hydraulic crane.

## TASK

- Make a hydraulic arm (crane) out of given materials to lift cans. You will receive 4 cans which you should place one on each other to make a pyramid with 3 cans as a base and one as a top.
- The crane can be controlled by syringes only. No hand hold or other way of controlling the functions of the crane.
- Any other constructions than the crane is forbidden
- Keep in mind, that the arm should be able to operate in all directions (left/right, up/down, forwards/backwards)
- The cans will be at any place up to 30 centimeters from the arm base-desk
- Screws can be used to attach the construction to the 'mother' board only.

## CLASSIFICATION

### 100 points in total

#### **BEST classification**

max **40p**

- Arm construction 15p
- Design and quality 5p
- Creativity 5p
- Final task + impression 15p

#### **Jury classification**

max **60p**

- Fastest time 1st / 2nd / 3rd 20 / 15 / 10 p
- Full pyramid construction 15p
- No leaks 10p



- No can falls 5p
- Crane (arm) will broke down -50p

### AUXILIARY CONDITIONS

- Presentation estimated 2 mins
- Task 5 mins
- Jury questions estimated 2 mins

### GENERAL CONDITIONS

- Participant cannot damage any of the university's equipment nor premises.
- It is forbidden to use any other material than the one received and the only equipment not forbidden is the received one and the one that you should take with you.
- Participants cannot ask questions nor use any help or material from outside the team.
- Feel free to use internet as an information source.
- Participants promise to act and behave properly, impressively, in a spirit of trust and fair-play.
- Participants will respect others and the well-known principles of fair-play.
- Any questions about the topic will be asked only to the Topic Responsible of the Team Design category.
- Topic Responsible has the power of 'veto' in any disputable topic cases.
- Topic Responsible has the right to make any partial changes in the topic if shown as incomprehensible or inconclusive. This will be told to at least one member of each team.