



WARR
Space Elevator



Klaus Höchstetter Stiftung



European Young Engineers



EUSEC
European Space Elevator Challenge



EuSEC 2011

European Space Elevator Challenge



Structure

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About EuSEC

- the first ‘Space Elevator’ competition in Europe
- organizers:
 - **WARR: Scientific Workgroup for Rocketry and Space-flight** of the Technical University of Munich (TUM)
 - in cooperation with:
 - TUM: Technical University of Munich
 - Klaus Höchstetter Foundation
 - Lrt: Institute of Astronautics
 - Eurospaceward – ESW
 - European Young Engineers – E.Y.E.



About EuSEC

- the banner:
 - „make it ecology-minded
 - make it efficient
 - make it European”
- the main focuses are on:
 - efficiency
 - technical implementation
 - reference to the „real Space Elevator”



About EuSEC

- main aims of EuSEC in the first years:
 - to introduce the ‘Space Elevator’ concept to the public
 - to inspire young budding engineers and scientists
- long-term goals of EuSEC
 - to establish a larger European space elevator community
 - to utilize the experiences for the development of a real ‘Space Elevator’ system



Requirements of 2011

- levels :

	Control Mode	Energy Supply
Level1	remote-controlled	battery
Level2	autonomous	battery

- the track:

- on a tether or a rope (selectable for each team)
- 25m high

- payload: min. 10% off the climber mass



Requirements later

- levels :

	Control Mode	Energy Supply
Level 1	remote-controlled	battery
Level 2	autonomous	battery
Level 3	autonomous	battery and natural energy source
Level 4	autonomous	power beaming

- with annually increasing distance and payload



Scoring

- categories:
 - Efficiency
 - on the basis of a formula including:
 - payload weight
 - the vertical component of the climb speed
 - output
 - Technical Realization
 - on the basis of the decision of the jury
 - Innovation
 - on the basis of the decision of the jury



Scoring

- prizes of 2011:

	3. Place	2. Place	1. Place
Efficiency Level 1	250€	500€	1000€
Efficiency Level 2	500€	1000€	2000€

Technical realization	250€
Innovation	250€



Participation

- target group:
 - students from universities, colleges, tertiary institutions
- application:
 - takes place with several steps -
 - the first step is at least **90 days before the competition**
 - the registration fee of one team amounts 100 €
 - an individual contact person from the organization team is allocated to each applying team



Event Information

- Date:

10. June 2011 – 12. June 2011

alternative date : 16. June 2011 – 18. June 2011

note: the number of days can vary by the number of applicants

- Place:

Germany; Technical University of Munich - TUM

Campus Garching - Garching Forschungszentrum



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