



Earth-Track-Controllers

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Our team Earth-Track-Controllers has been in three events now for the Space Elevator Event around the world, and is a fascinating idea to most people. Here in this presentation you will learn a little about what our teams goals are and the concept of our design.

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1. Introduction

USA/Japan

Akira Tsuchida, Amie Allison and

Team Leader:

Chad Lorsung

2. The development-process of your Climber

- Our teams climber developed over the years from other competitions
- In 2007 we were in the NASA Centennial Challenges
- Japans 300 meter climb in 2010 and Awarded Maintenance Award.

2.1. Concept

- Goal was to keep it simple and easy to repair.
- Ability to climb up a rope or ribbon.
- RC controlled or Autonomous mode.
- Four wheel design for more pulling power and added stability

2.2. Design

- The subsystem and components of the climber.

2.3. Manufacture

- A lot of the Manufacturing and design was based on how we could make it cheaper; build it lighter, faster and more efficient.

2.4. Assembly, Integration & Testing

Explanation of Chart

2.5. Project Management

- Our team had used a Microsoft program called Visio to stay organized and on track.

3. Conclusions

- Since starting in the NASA Centennial Power Beaming Challenge in 2007, we noticed climbers speeds have changed from 2 meters per second to roughly 4 meters per second plus.
- Advances in technology have changed making things lighter and stronger. Batteries are now providing more power for longer periods of time.

4. Reference

- Skype- Used to talk to other teammates.
- Free Google Sketchup - Used for project design
- Microsoft's Visio – To keep organized
- Aluminum and parts- From Fleet Farm
- Radio Shack- Electronic parts
- M & M Hobby local shop