

EuSEC

European

Space Elevator Challenge

Earth-Track-Controllers

USA/Japan

Akira Tsuchida, Amie Allison and
Team Leader
Chad Lorsung



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.



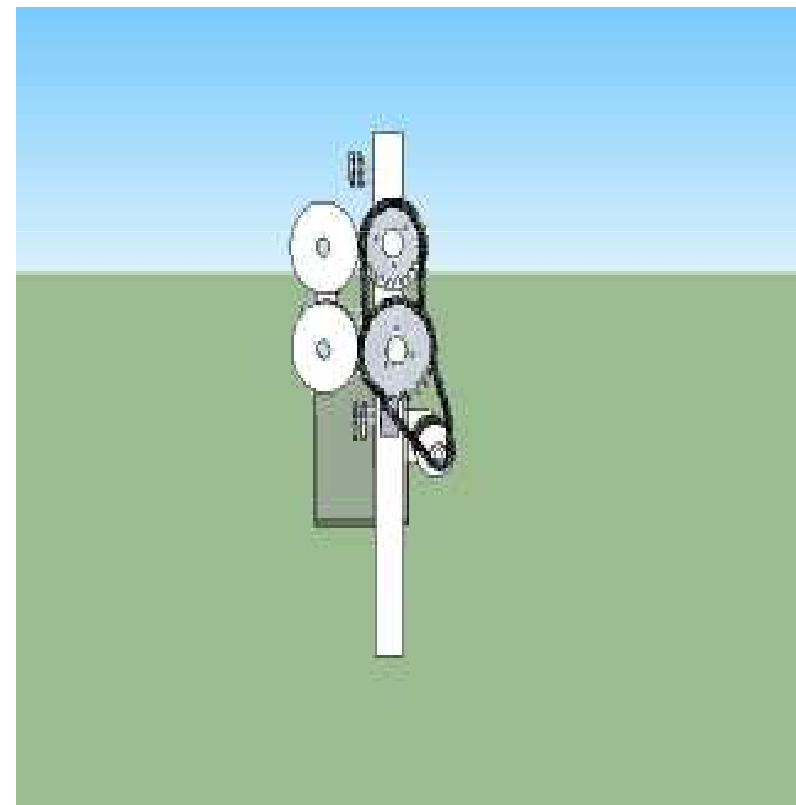
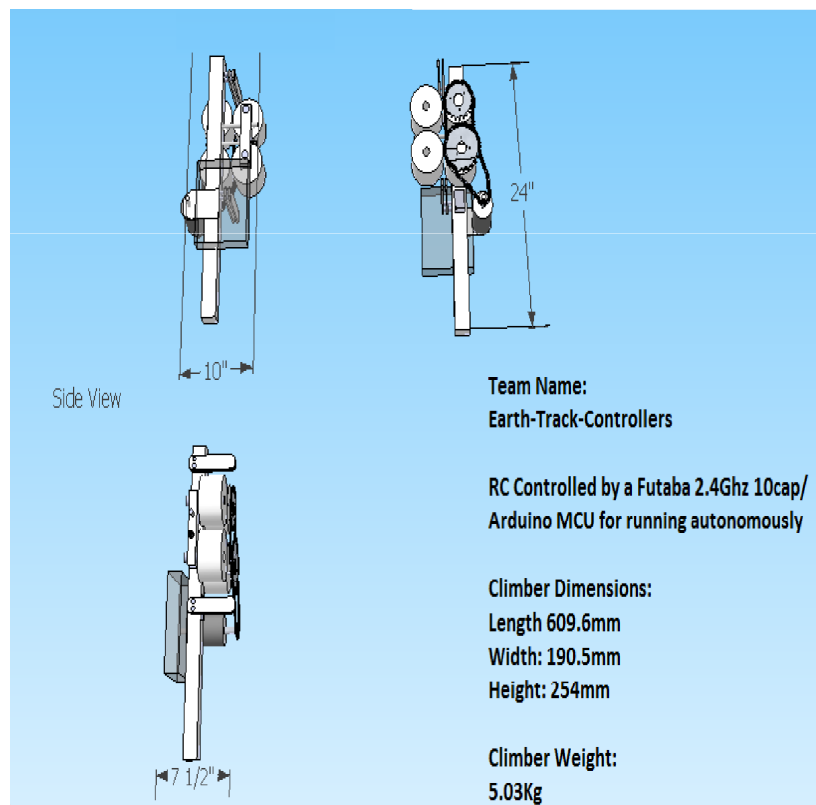
Concept

- 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.



Design

- The subsystem and components of the climber.

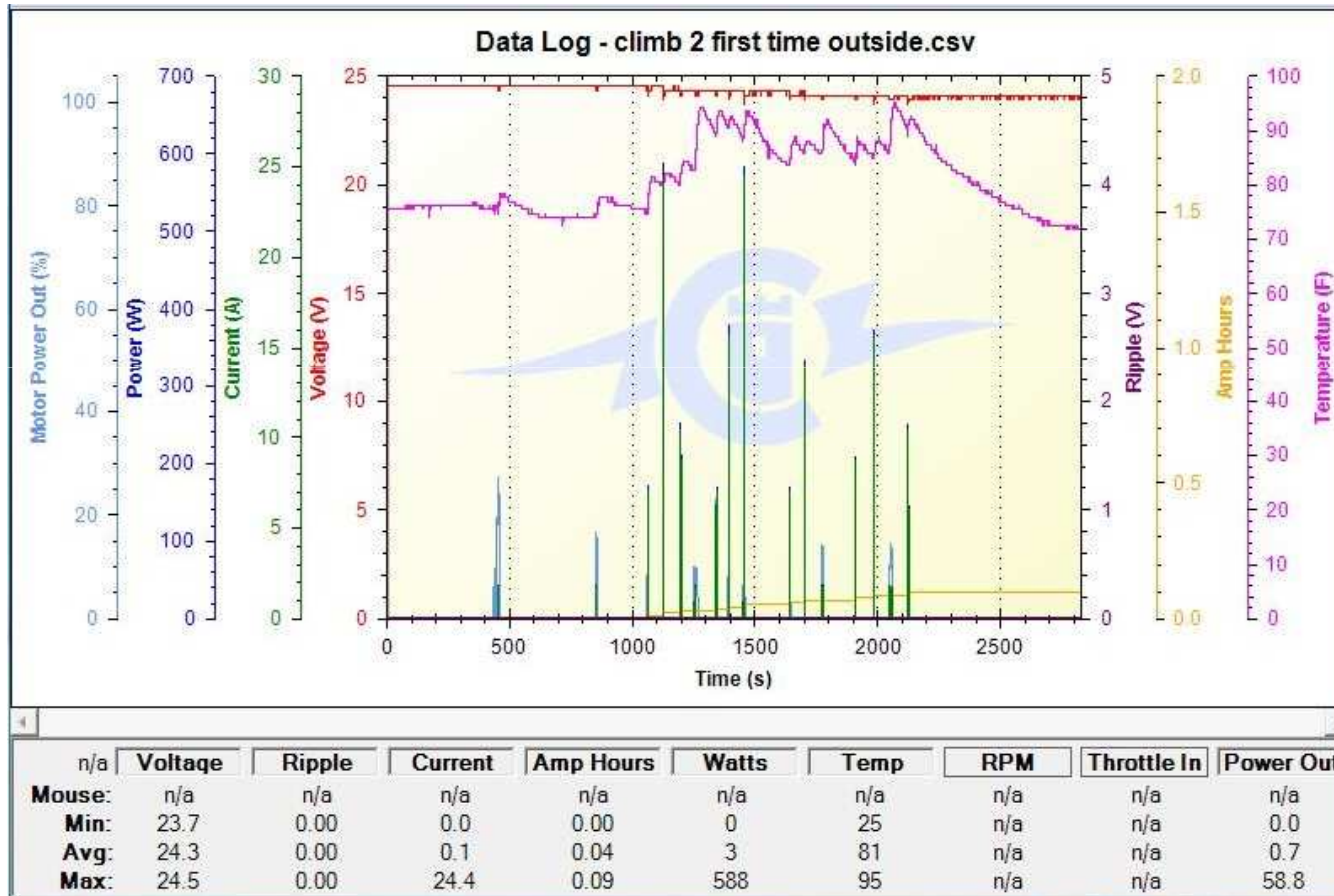


Manufacture

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

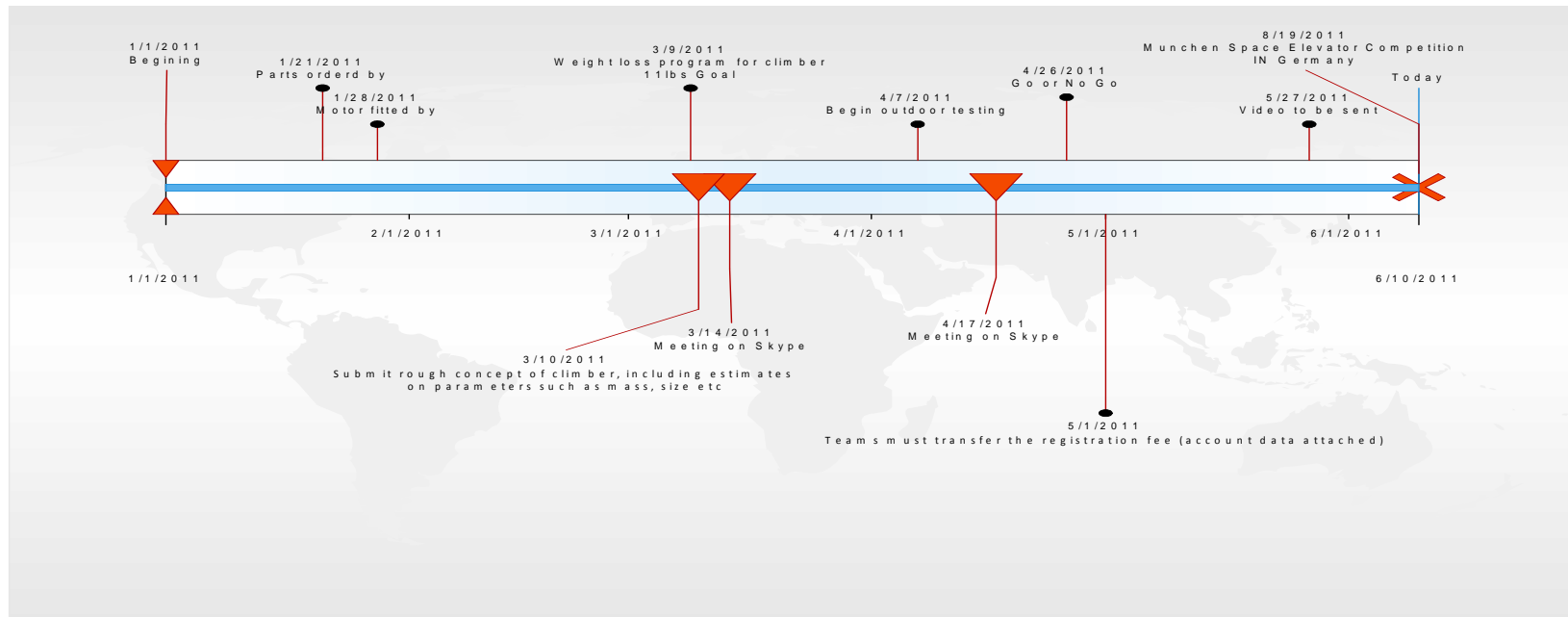


Assembly, Integration & Testing



Project Management

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



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.



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



Thanks for allowing
Earth-Track-Controllers
to be a part of the European
Space Elevator Challenge!!

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