University of Michigan Solar Car Team

03/20/2015

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Topics

- Building a Team
- Team Organization
- Developing a Timeline
- Establishing a Budget
Building a Team

- Recruiting
- Mission and Vision
Past Recruiting

The team is composed of full-time students...

- Over 200 interested at informational meetings
- Join the team and work on a project

Led to a few problems

- Expectations were not made clear, led to students quitting
Stage I: Informational Meeting

Stage II: On the team!
On-Boarding

• Set expectations early

• Introduce new members to team policies, culture, procedures

• Teach new members suite of tools needed to be successful on the team

• Surround new members with experienced members
Stage I: Taste of Solar Car

- One week to “taste” different divisions within the team
- A chance to decide a division before committing
Stage II: Assessment

• 45 minute “quiz” on regulations and division-specific content

• Process used to evaluate each recruit
Stage III: Project Design Review

- Three weeks to work on a project for the team
- Dedicated time to learn software, tools, and principles
Stage IV: On the Team!
Team Mission, Culture and Vision

• Extremely important and hard to change
• Must be relatable to the entire team
• Determines the standard by which your team will operate
• Highest leaders of any team must be aware of changes to the above
• It will change greatly on presentation
Team Mission and Vision

Do your best
Team Organization

- Structure
- Meetings
Our Structure – Six Divisions

- Mechanical
- Electrical
- Aerospace
- Strategy
- Business
- Operations
Leadership Meetings

• Meet twice per week to discuss
  • Timeline
  • Budget
  • Updates from each division
  • Notable issues pertaining to the team

• Limit meetings to one hour or 30 minutes prior to General Team Meetings
  • One long meeting and one short meeting
General Team Meetings (GTMs)

• Begins with 10-30 minute presentation
  • Update the team with current progress
  • Summarize minutes from leadership meeting
  • “Featurette” on solar car history, other teams, etc.
    • How WRF works
    • How solar panels work
    • ASC
    • Momentum
    • A specific sponsor history
    • etc
Developing a Timeline
Timeline

• The goal of a timeline should be to showcase the flow and pace of the project
• A timeline that is not maintained is useless
• A timeline that is not followed makes it lose value
  • However, in moderation, it can serve as a motivating force for your team
  • This must be done with caution and adjusted on a case-by-case basis
How we make our Timelines

• Engineering Director completes and manages timeline of everything vehicle related
  • Individual sections are more closely managed by leads of the respective divisions
  • Ex: ED → First Array must be done by December 15th
    EL → CAD array Oct 15th – 29th
    Array Wiring Dec 1 – 4th etc

• Project Manager completes and manages the timeline of everything non-vehicle related
  • Similar to engineering in terms of management

• Made using MS Project, or Smartsheet
Swimming Lanes

• Method of time management during the summer or breaks
  • Leaders hold larger goals (similar to before)
    • Now each team member is responsible for creating their schedule
  • Former division leads help new people

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University of Michigan
Establishing a Budget

- Cash flow
- Sponsor and University relations
# Budget and Cash Flow

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Sponsor and University Relations
Knowledge Transfer

- Sunday