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Building a Successful BEST Robotics Team – A Coach's Perspective

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1. Forming Your Team

- ▶ Start Early and Recruit Early
- ▶ Create Informative Parent Meeting
 - ▶ Have student packets ready to go with every release form you need for entire season
 - ▶ Have a well prepared presentation that focusses on what students will gain from the program
 - ▶ Not about winning
 - ▶ It's more about the struggle, team-work, design process, following through with challenges. . .



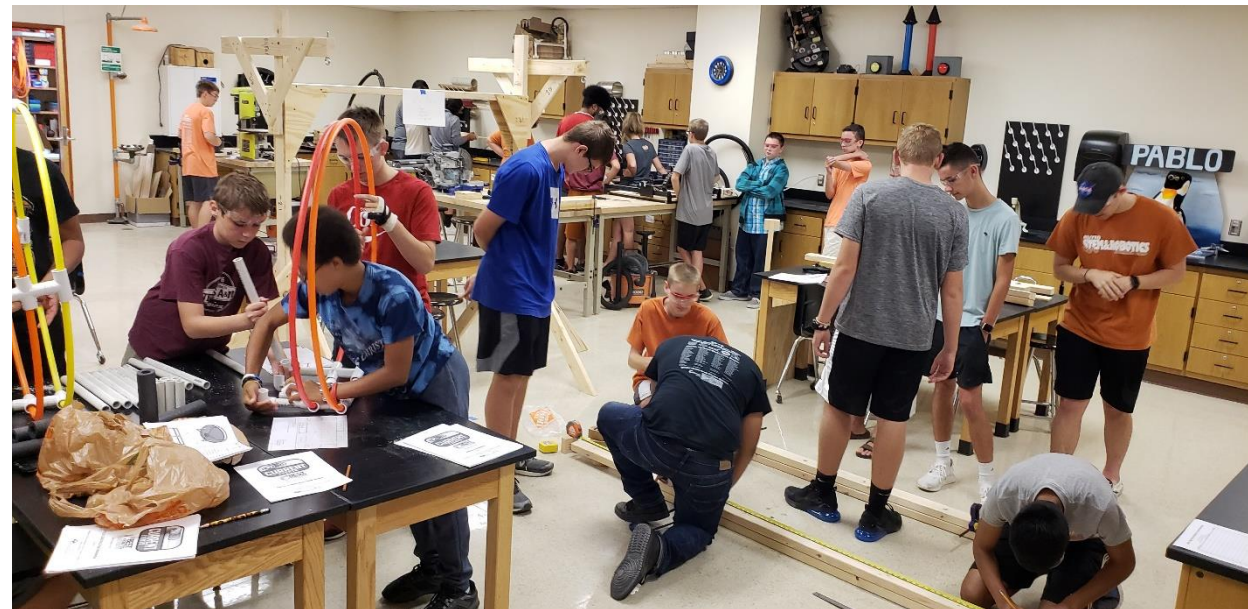
1. Forming Your Team

- ▶ Allow students to sign-up, but also seek out members for your team
- ▶ Recruit from art classes
- ▶ Recruit from debate team
- ▶ Recruit cheerleaders
- ▶ Recruit computer science students
- ▶ Reach out to Science Teachers from the Middle School and have them nominate specific students.
 - ▶ Write a letter inviting them to be apart of your program



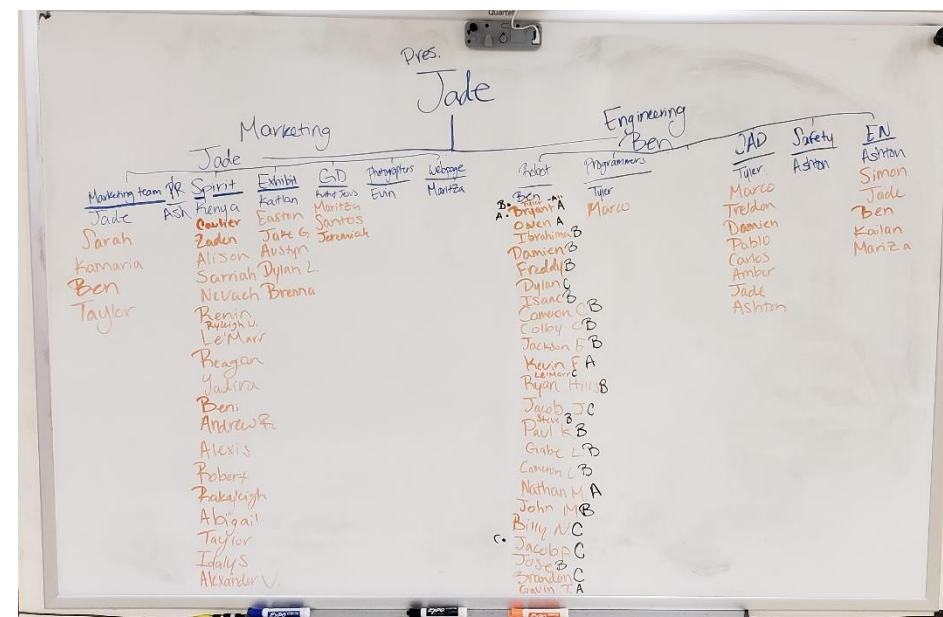
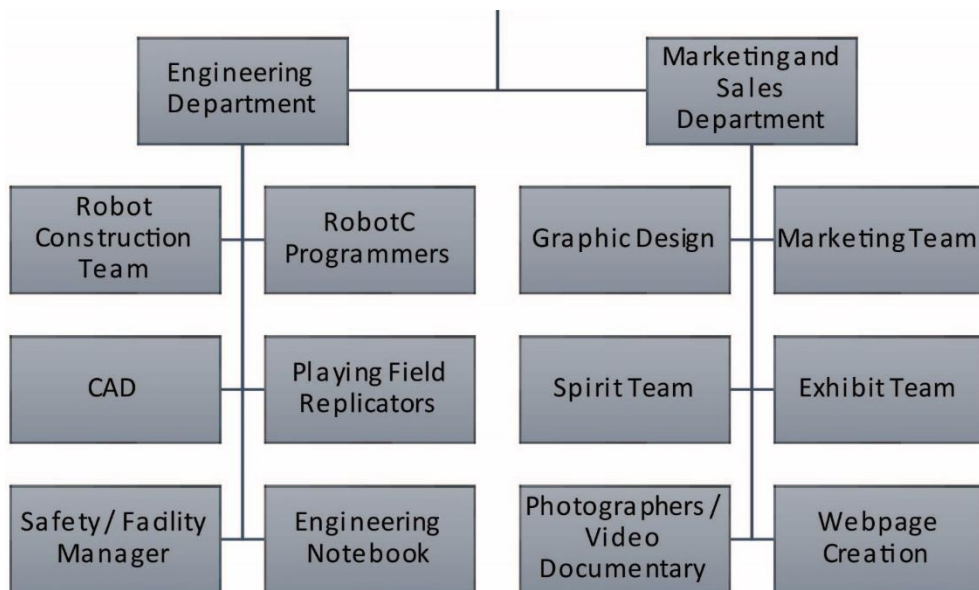
1. There's A Job For Everyone

- ▶ Make a personal connection with the students you choose
- ▶ Try not to send blanket emails
- ▶ Create methods to communicate with students and parents
 - ▶ Remind 101
 - ▶ Email groups
 - ▶ Groups texts
 - ▶ USE THEM!!!



2. Treat It Like A Real Company

- ▶ Have everyone apply for jobs – Even Returners
- ▶ Create an organizational chart with managers and department heads



2. Treat It Like A Real Company

- ▶ Engineering Notebook Author
- ▶ Exhibit Build Team
- ▶ Public Relations
- ▶ Treasurer
- ▶ Graphic Design
- ▶ Programmer
- ▶ Webmaster
- ▶ Playing Field Replicator
- ▶ Photographer
- ▶ Video Producer
- ▶ Marketing Team
- ▶ Spirit Team
- ▶ Build Team
- ▶ Safety Officer
- ▶ CAD Team



3. Have High Expectations

- ▶ “All I expect is absolute perfection. Is that too much to ask?”
- ▶ Kidding of course



3. Have High Expectations

- ▶ If a student says they can do something in their application, hold them to it
- ▶ They will rise to the occasion and figure it out



3. Have High Expectations

- ▶ We are teachers and mentors . . . So, we should teach and mentor. . .
- ▶ Students absolutely should do all the work, but it's our job to guide, teach and relate to the real-world



4. Be Prepared And Communicate

- ▶ When you meet students and parents for the very first time...
 - ▶ Have student packets ready to go with every release form you need for entire season
 - ▶ Show Game Teaser Video
 - ▶ Have a plan for Fundraising
 - ▶ Have a calendar for the entire season & stick to it
 - ▶ Have methods of communication ready & use it
 - ▶ Be Confident in you program and delivery

Expenses And Raising Money

- ▶ What's great about BEST Robotics!!!
- ▶ There is no expense to get started
- ▶ However, there are potential additional expenses. . .
 - ▶ Team shirts, exhibit, playing field & travel
 - ▶ UIL competition (\$750 for your entire team)



Fundraising. . .Yay

- ▶ Sponsorships
- ▶ Easiest way to raise money. . .just ask for it
- ▶ Give something in return
 - ▶ Put logo on shirt, website or robot
 - ▶ Give marketing presentations



Fundraising. . .Yay

- ▶ Concession stands at school or community events



Fundraising. . .Yay

- ▶ Camps and clinics
 - ▶ STEM and robotics is a buzz word
 - ▶ Public schools are an untapped resource for the community
 - ▶ If you're low on resources, it does not have to be robot related



BEST Award

- ▶ If you're going out for the BEST Award, emphasize the importance of every category
- ▶ Delegate responsibilities to other teachers or parents
- ▶ Do as much as you can before Kick-Off

BEST Award

- ▶ Know your scoresheets
- ▶ Make sure your managers know the score sheets
 - ▶ This is a guide with all the directions to be successful
 - ▶ Follow the order of the score sheet



BEST Award – Spirit and Sportsmanship

- ▶ Invite the entire school to attend
- ▶ Invite the cheerleaders and band
- ▶ If the high school cheerleaders can't come, invite the middle school cheerleaders
- ▶ Make signs for every team attending
- ▶ Build alliances
- ▶ Don't go into the PIT. . . prepare and trust your kids



BEST Award – Marketing Presentation

▶ Dress for Success!!!



BEST Award – Marketing Presentation

- ▶ Practice, practice, practice. . .
- ▶ Students should be very comfortable with presentation
- ▶ Have debate or speech Teacher critique presentation
- ▶ Present marketing presentation in order of scoresheet

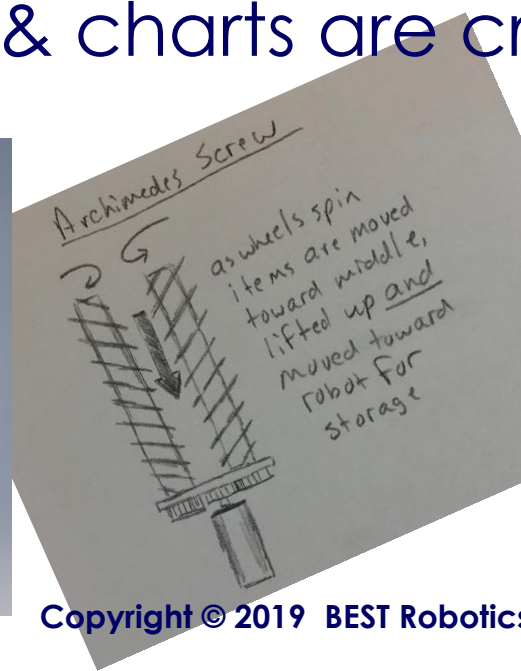
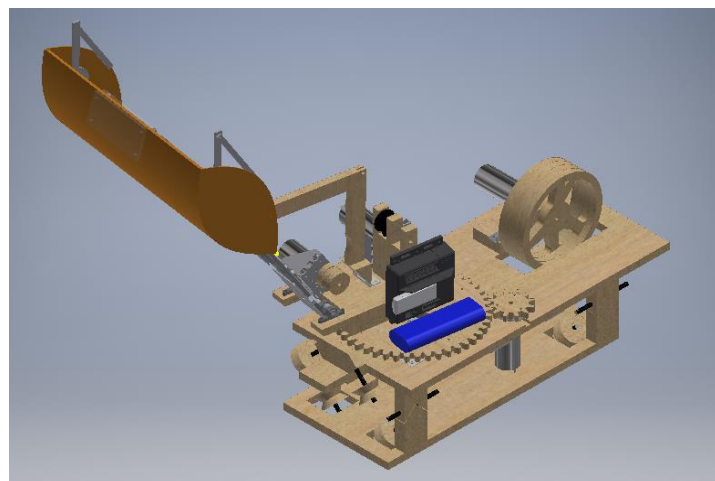
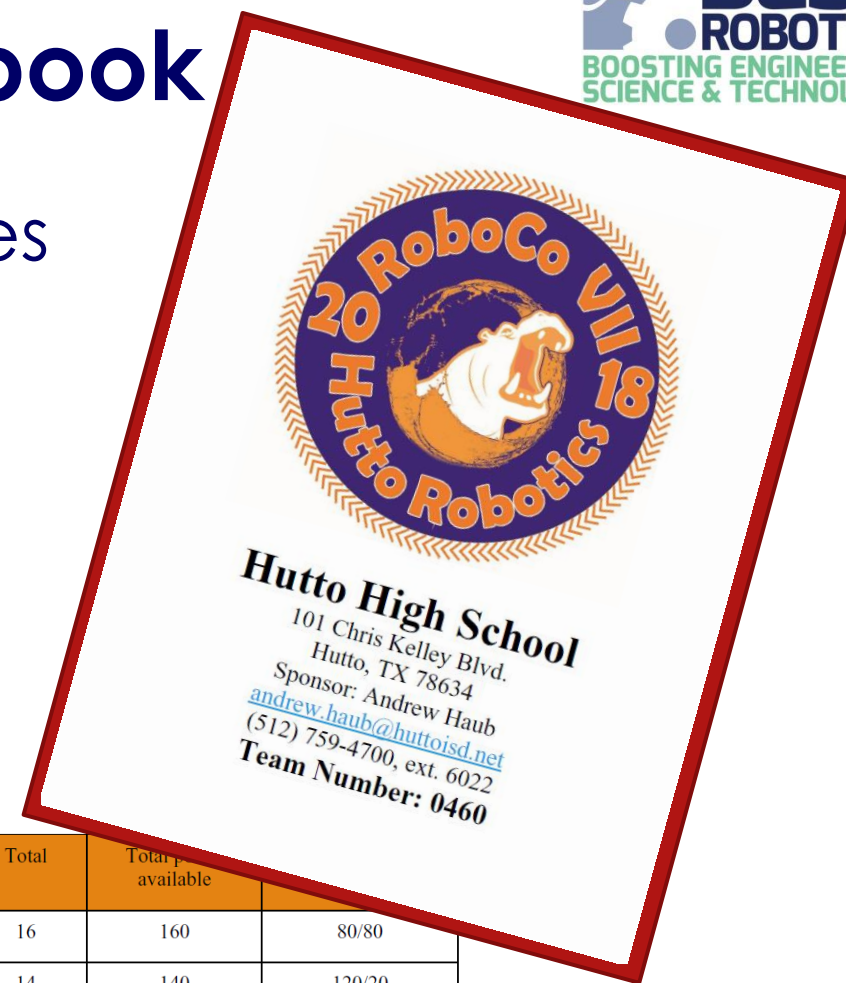


- ▶ Humor and personality go a long way. . . But don't go too far



BEST Award – Engineering Notebook

- ▶ Break up the book and all its categories
- ▶ Develop a template
- ▶ Proof read, proof read, proof read
- ▶ Maintain timeline
- ▶ CAD, diagrams & charts are crucial



Objects	Per gyre	Total	Total p available	
Cans	8/8	16	160	80/80
8 oz	12/2	14	140	120/20
16 oz	12/2	14	140	120/20
1 Ltr	2/6	8	80	20/60
balls	40	40	200	200 (all ours)

TABLE 3 - STRATEGY DECISION MATRIX

BEST Award – Exhibit & Interview

- ▶ Be creative
- ▶ Recruit your artists and students with good penmanship
- ▶ Print media vs. Hand drawn media
- ▶ Be mindful of the flow of your exhibit, don't be cluttered
- ▶ Incorporate game theme into your design



BEST Award – Exhibit & Interview

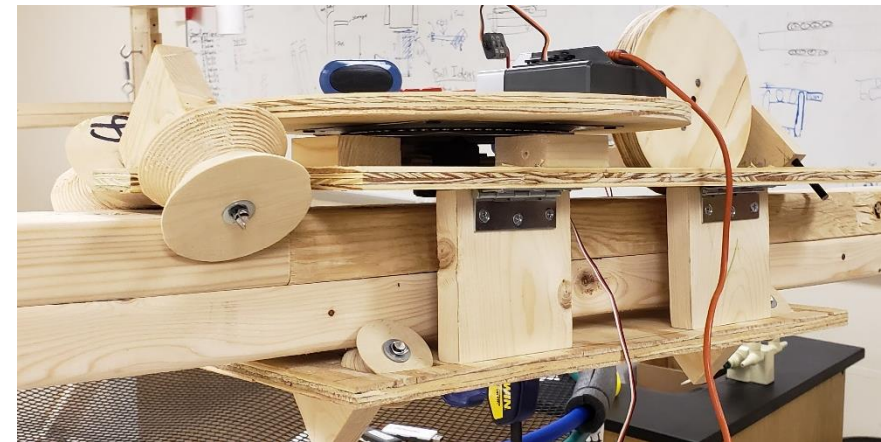


BEST Award – Exhibit & Interview

- ▶ Don't give away easy points
- ▶ Be mindful of scoresheet changes
- ▶ 8' x 8' x 8'
- ▶ Not a student hangout or place for storage
- ▶ Have students practice their presentation and interview them. Be hard. Practice the same you would practice the marketing presentation.

BEST Award – THE ROBOT!!!!

- ▶ The hardest or easiest 15 POINTS to earn
- ▶ Don't lose before you even compete
- ▶ 24" x 24" x 24" maximum
- ▶ 24 lbs maximum
- ▶ No tape on return kit
- ▶ Make sure you use the battery they give you
- ▶ No unauthorized parts (from previous years)
- ▶ Guard the box



BEST Award – THE ROBOT!!!!

- ▶ The hardest or easiest 15 POINTS to earn
- ▶ Firm Mathematical formula for points you earn
 - ▶ Top 20% - All 15 points (top 5 out of 25 teams)
 - ▶ Top 40% - 12 points (top 10 out of 25 teams) – a must
 - ▶ Top 60% - 9 points (top 15 out of 25 teams)
 - ▶ Top 80% - 6 points (top 20 out of 25 teams)
 - ▶ Top 100% - 3 points (top 25 out of 25 teams)



BEST Award – THE ROBOT!!!!

► Keys to success

1. BUILD THE PLAYING FIELD (OR A LEAST PARTS OF IT)
2. START BY DOING ONE THING WELL
 - Watch out for decoy points (the reef was sort of the decoy last year)
3. Keep it simple and be mindful of your timeline
4. Nothing beats a solid week of practice. . .
 - Except maybe 2 weeks of practice
5. Develop a routine and stick to that routine
6. Every driver is important



Final Thoughts. . .

- ▶ Make BEST Robotics as Big and Important as you want it to be
- ▶ <http://www.bestinc.org/> (national web site)
 - ▶ Incredible resource, don't just rely on your hub