**42 Days of MSBEST**

This is meant as a strategic operating guide, not an all-inclusive instructional model.

**PRIOR TO KICKOFF**

* Submit travel requests to school administration. Many districts require a great deal of lead time for student travel.
* Begin to develop an understanding of the Engineering Design Process as a team.
  + Develop student understanding of the EDP through practice activities and debrief
* Recruit support (teachers and/or parents) who may be able to assist with portions of the program:
  + **Shop Coach** to assist with tool use
  + **Technology Coach** to supervise web team administration, web site design
  + **Writing Coach** to supervise technical notebook
  + **PR/Marketing Coach** to supervise Marketing display design/construction & Marketing presentation
  + **Travel Agent** - to help organize travel for kickoff, preview day (optional), and game days; distribute/collect permission slips, medical release forms, lodging, etc.
* Recruit mentors locally
  + Make sure they understand the time commitment!
  + Anyone can be a mentor - parents are welcomed!
  + No engineering degree or robotics experience required. Folks with technical or mechanical interest and experience are most helpful
  + Engineers/technical professionals can be found in public utility companies
* Recruit students for BEST team
  + Determine eligibility (GPA restrictions, discipline)
  + Recruit students from mixed grades
  + Stress BEST is a student-led, not teacher-led competition
  + Stress ownership and responsibility
  + Identify strong officer material – competent, dependable students
  + Conduct pre-construction session with students, mentors
    - Have “safety officer” lead a tool and shop safety session
    - Go over in-case-of-emergency steps
    - Set up ground rules for tool use
    - Go over medical release form (if appropriate)
    - **NOTE: it is *always* appropriate for mentors to operate power equipment instead of students!**
* Develop local funding support:
  + Identify a Fundraising Leader for any travel costs, Marketing display, team t-shirts (optional), etc.
  + Identify needs of team spirit materials (banners, posters, noisemakers, etc.)
  + Prepare a budget
  + Identify local sponsors
  + Develop sponsor recognition efforts
  + Develop a process for contributions
* Kick Off Day planning
  + Travel plans (transportation, food, release forms)
  + **NOTE:** you will need room for:
    - Four (4) pieces of plywood (ea 4-ft. square)
    - Bundle of pvc pipe (4” wide x 5’ long)
    - Two large boxes of parts
    - Team assignments (sub-groups for playing field and robot dynamics, BEST Award team leader, photographer, etc.)

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| 9/7/2013  KICKOFF DAY | Attend Kickoff Event at Raspet Flight Lab, 114 Airport Rd., Starkville, MS 8 am – 1 pm  Team Registration  Sign-up to complete in BEST Award  Pick up Returnables Kit (check for all pieces)  Pick up Consumables Kit (check for all pieces)  Attend Presentations  Photo/Video field  Start Reading the Rules and task requirements |
| 9/8-14/2013 Week One | Develop Team Organization  Create team assignments: Notebook, Design, Marketing, etc.  Study Task and begin brainstorming – which may include drawing, CAD, cardboard prototypes, etc.  Create subproject pieces (ie. Articulating arms, driving mechanism, chassis, etc.)  Test electronics – on tabletop, not robot  Begin Marketing Presentation data gathering  Review Rubrics |
| 9/15 – 21/2013 Week Two | Complete sketches and CAD versions of parts for final determination of selection  Construct Common Parts (motor mounts, couplers, pulleys, etc.)  Have CAD groups begin testing virtual prototypes  Begin assembling code being used |
| 9/22 – 28/2013  Week Three | Produce formal design sketches/CAD drawings in preparation for production  Begin producing parts  Begin basic assemblies of components (ie, arms, chassis, etc.) and begin driving and repeated testing  Detail planning of Marketing Booth  Outline Marketing presentation – review rubric |
| 9/29-10/5/2013 Week Four | Construct finalized components and begin final assembly and testing  Build Marketing booth – review rubric  Compile information into Marketing Presentation |
| 10/6 – 11/2013  Week Five | Practice driving to identify problems  Refine strategic plans  Refine design of individual parts and document any changes.  Compile Notebook – review rubric  Finalize Presentation – review rubric |
| 10/12/2013  Preview Day | NOTEBOOKS ARE DUE!! MUST BE UPLOADED TO THE [www.msbest.msstate.edu](http://www.msbest.msstate.edu) SITE BY 5 PM.  ALSO DUE: T-SHIRT ENTRIES/WEBSITE ENTRIES  Teams who do attend will be able to drive their robots on the field and possibly complete in practice rounds |
| 10/13 – 17/2013  Week Six | Complete and Polish Marketing booth – review rubric  Practice and Polish Marketing Presentation – review rubric  Practice Driving with each driver and spotter pairs. Make sure you have enough sets as required by the rules. Finalized drivers list due at check-in on Game Day  Review and Polish Strategy |
| 10/18/2013 Game Day 1 | Marketing Presentations Judging  Marketing Booth set-up  Practice rounds  All Robots must go through compliance and will be impounded overnight. |
| 10/19/2013 Game Day 2 | Marketing Booth Judging  Spirit & Sportsmanship Judging  Full Robotics Competition  Awards Ceremony  Meeting for teams advancing to South’s BEST Regional Competition (December 7&8, 2013) |