**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 pmTeam RegistrationSign-up to complete in BEST AwardPick up Returnables Kit (check for all pieces)Pick up Consumables Kit (check for all pieces)Attend PresentationsPhoto/Video fieldStart Reading the Rules and task requirements |
| 9/8-14/2013 Week One | Develop Team OrganizationCreate 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 robotBegin Marketing Presentation data gathering Review Rubrics |
| 9/15 – 21/2013 Week Two | Complete sketches and CAD versions of parts for final determination of selectionConstruct Common Parts (motor mounts, couplers, pulleys, etc.)Have CAD groups begin testing virtual prototypesBegin assembling code being used |
| 9/22 – 28/2013Week Three | Produce formal design sketches/CAD drawings in preparation for productionBegin producing partsBegin basic assemblies of components (ie, arms, chassis, etc.) and begin driving and repeated testingDetail planning of Marketing BoothOutline Marketing presentation – review rubric |
| 9/29-10/5/2013 Week Four | Construct finalized components and begin final assembly and testingBuild Marketing booth – review rubricCompile information into Marketing Presentation |
| 10/6 – 11/2013Week Five | Practice driving to identify problemsRefine strategic plansRefine design of individual parts and document any changes.Compile Notebook – review rubricFinalize Presentation – review rubric |
| 10/12/2013Preview 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 ENTRIESTeams who do attend will be able to drive their robots on the field and possibly complete in practice rounds |
| 10/13 – 17/2013Week Six | Complete and Polish Marketing booth – review rubricPractice and Polish Marketing Presentation – review rubricPractice 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 DayReview and Polish Strategy |
| 10/18/2013 Game Day 1 | Marketing Presentations JudgingMarketing Booth set-upPractice roundsAll Robots must go through compliance and will be impounded overnight. |
| 10/19/2013 Game Day 2 | Marketing Booth JudgingSpirit & Sportsmanship JudgingFull Robotics CompetitionAwards CeremonyMeeting for teams advancing to South’s BEST Regional Competition (December 7&8, 2013) |