

How to Develop a BOPD Team Plan
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How to Develop a BOPD Team Plan

1. Schedule

At the very first meeting, your team should come up with a basic schedule. Knowing what you are doing is the most important thing you can do to ensure success for your team. Make the schedule and then keep it.

The first thing we did was to write a schedule on paper. See Figure 1. Then we adjusted this schedule to come up with a complete list for the entire Botball Tournament season. We color coded the schedule so that we could see what things had been done and what still needed to be done. We left room to add these details. Red meant an incomplete task, green was a completed task, and blue was for a task completed late. The schedule should also include who is responsible for each task. We included weekly goals and daily activities.

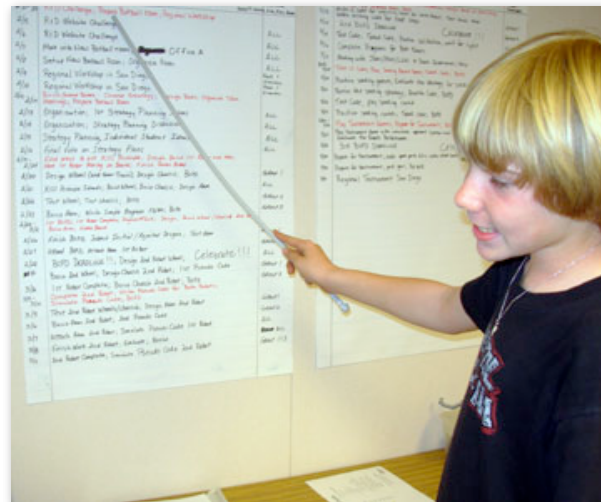


Figure 1 Captain Pointing to Schedule

Our team tried several different methods for making an electronic schedule. First we tried to make a calendar type schedule. We wanted to generate it electronically so we tried iCal on our Mac, but didn't have much success. It was too hard to type all the information that we wanted to include. We tried another calendar program and then decided we should not use this method. We also tried just making a list of dates. That seemed to work but didn't produce a document that was easy to read or revise.

Finally we decided to try using a table in Pages (Mac word processor). The table gave us all the control over the text and the layout. We used this method and produced a schedule for our team. See Figure 2. We could easily include the color coding and it was also easy to make changes. Every week we could see if we needed to revise the timeline because we didn't get as much accomplished as planned or we got ahead of the schedule.

Date	Botball Team Plan for 07-0047 Lincoln BigCatBots Weekly Goals / Daily Activities	Team Members
Red = Incomplete Task; Green = Completed Task; Blue = Completed Late * Milestone Deadline incomplete		Team Captain: Roak Group1: Cole, Mekai, Mark, Rose, Jaime Group2: Carol, Brianna, Alex Es. Group3: Giselle, Alex, Riley, Brandon
2/5-2/10	R&D Challenge; Prepare Botball Room; Regional Workshop	
2/5	R&D Website Challenge	All
2/6	R&D Website Challenge	All
2/7	Move Into New Botball Room, Office A	All
2/8	Set Up New Botball Room; Organize Room	All
2/9	Regional Workshop in San Diego	Roak, 2 Coaches
2/10	Regional Workshop in San Diego	Roak, 2 Coaches
2/12-2/17	Build Game Board; Choose Strategy; Assign Roles; Organize Team Meetings; Prepare Botball Room	
2/13	Organization; 1st Strategy Planning Ideas	All
2/14	Organization; Strategy Planning Discussion	All
2/15	Strategy Planning Individual Student Ideas	All
2/16	Final Vote on Strategy Plans	All
2/19-2/24	Find Ways to Use KISS Principle; Design, Build 1st Robot & Arm; Have 1st Robot Moving on Board; Finish Game Board	
2/20	Design Wheel (and Gear Train); Design Chassis; BOPD	Group 1
2/21	KISS Principle Ideas; Build Wheel; Build Chassis; Design Arm	All
2/22	Test Wheel; Test Chassis; BOPD	Group 2
2/23	Build arm; Write Simple Program FD/BK; BOPD	Group 3
2/26-3/2	1st BOPD; 1st Robot Complete; Program 1st Task; Design, Build Wheel/ Chassis 2nd Robot; Build Arm; Game Board	
2/26	Finish BOPD; Submit Initial/Rejected Designs; Test Arm	Group 1
2/27	Upload BOPD; Attach Arm 1st Robot;	Group 2
2/28	*BOPD DEADLINE!!; Design 2nd Robot Wheel; Celebrate	All
3/1	Build 2nd Wheel; Design Chassis 2nd Robot; 1st Pseudo Code	Group 1
3/2	*1st Robot Complete; Build Chassis 2nd Robot; BOPD	Group 3

Figure 2 Page 1 of Electronic Schedule

2. Team Meeting Notes

To go along with our BOPD schedule, we developed team meeting notes. Using the schedule we planned out what activities we should be doing on each of the meeting days. We wrote down what the major goals were for each week and then added each meeting day with the activities we should be doing on that day. Then afterwards one team member wrote down what actually took place on that day. This allowed us to see where we were in reference to the timeline and how much progress, or lack of, we were making.

At the end of each week we included a review of the goals. This included the goals we accomplished (color coded in green) and goals to complete or do better (color coded in red). Major deadlines like the BOPD deadlines determined by KISS and our personal deadlines were typed in larger text and bold. Then team members wrote comments on the week and our progress. We also included some pictures that the team photographer was taking to document our progress.

2.1 Sample Team Meeting Notes

Botball 2007

Lincoln BCBs 07-0047

Team Meeting Notes

Week One



Goals for the Week of Feb. 5:

Finish R&D Website Challenge, Prepare Botball Room, Attend Regional Workshop

Monday, Feb. 5

Activities: R&D Challenge

The team worked on the last items to change for the R&D website challenge. The VR movies were made of the three robot designs and saved to the website. All the pages were finished.

Tuesday, Feb 6

Activities: R&D Challenge

The latest changes to the website were uploaded to KIPR. There were problems with replacing pages and we had to take down previously uploaded pages. Today we had a problem between two of the team members. We were building some models and there was a problem over who was going to actually do the work so two of the team members decided they couldn't to work together.



AGRO-BOTGUY

Wednesday, Feb. 7

Activities: Move Equipment

Mrs. Reynolds gave us a talk on being members of a team and we all wrote down what we thought it meant to be a team member. All of the equipment that our team has been using had to be moved into our new Botball room. We started working on this. The group working on the website had to go back and replace the pages on our R&D site. We still had problems uploading our data to the site.

Thursday, Feb. 8

Activities: Prepare Botball Room

We all worked on preparing the new Botball room and getting everything organized and ready for starting the season next week. There's still more work to do. The two boys that were having problems before have settled the issues and are now working together well. They are planning to do a cartoon animation about Botguy together.

Friday, Feb. 9

Activities: Regional Workshop in San Diego 1st Day

Our team captain, Roak, attended the workshop with two of the team's coaches, Mrs. Reynolds and Mrs. Ely. Report from Roak: Thursday night we drove to San Diego for the regional workshop talking about what to do and what not to do on the game board and while programming the robot. I had a sandwich for lunch and Mexican food for dinner.

Saturday, Feb. 10

Activities: Regional Workshop in San Diego 2nd Day

Report from Roak: Today, basically we did the same things except I had chili for lunch. We learned the rules of the game and how to program the robot to do really cool things.

Review of Goals for the Week of Feb. 5:

Goals Accomplished:

Finished R&D Challenge Website
Attended Regional Workshop

Goals to Complete or Do Better:

Finish the Botball Room (Organize It Better)

Team Comments:

Ok, we had some problems but we worked it out. We are now doing very good and we are working everything out and our team is doing very well. Our team is now building more robots, but we need a few more. Now our team is writing paragraphs and solving more problems that we didn't get to solve before. We have been typing a lot on the online documentation. Our team captain 'Roak' has been doing more of the typing. Our team has done a lot of practicing and a little bit of building. And we have to think a lot now.

Week Six

Goals for the Week of March 12 - 17:

Complete 2nd Robot; Write pseudo code 2nd robot; Make a flow chart for each robot; Start IC code for both Robots; Evaluate Mechanical Design Based on Simulations; Re-design Defective Parts; 2nd BOPD Deadline

Monday, March 12

Activities: Write pseudo code for 2nd robot; Finish Robot Chassis; Design Arm for 2nd Robot; Draw Plan for Robot 1 with measurements from pseudo code

BOPD: Today we tried to finish the BOPD because we would have no other practices before the deadline. We all wrote what we learned from the programming.

Programming: We also made plans for our 2 robots. We measured where the robots are supposed to go. We created pseudo code for each robot's program. (See Team Documents Page #3) We did a lot today. Rosaleen made a map and pointed where the first robot has to go. Mekai helped and did a map for the second robot showing where it has to go also. Roak and Markie typed the B.O.P.D. online submissions for the deadline. Roak, Mekai, Rosaleen, Jaime, and Markie had to make flow charts for the robots and their measurement. We did all of that today.

Tuesday, March 13/14 District Tech Expo; Roak, the Team Captain, went to the HI Tech Fair to help demonstrate, Botball Booth.

*** BOPD DEADLINE**



Thursday, March 15

Activities: Attach servo for arm on 2nd robot; Begin IC code

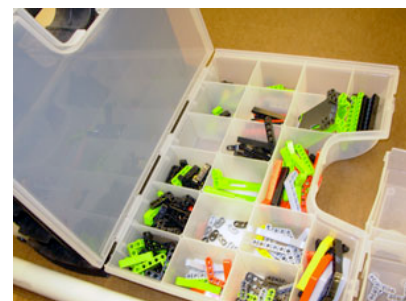
Mark and Jaime worked on building the servo holder. They made several adjustments and then finished it. We looked at the robots and made some changes based on our simulations. The arm on the 2nd robot has been moved. The legs on the 1st robot are also changed and the cradle sides need to be changed. The side wing that pushes the pineapple out of the way hangs down running into the pipe. We need to come up with another idea to push the plant away. Other team members worked on the ic code for our programs. Some of the team members were not there. The District Science Fair is this evening and they have projects to show.

Friday, March 16

Activities: Build arm for 2nd robot; Continue ic code; Evaluate designs; Make changes; BOPD

We sorted the legos back into the kit.

We also worked on the web page document for NCER



Saturday, March 17

Activities: Meet with JGMS to talk and share.

Due to circumstances we were not able to meet on Saturday with the other kids. We have been talking to them and sharing ideas, problems, and solutions.

3. Team Concluding Comments

At the very end of our season the team wrote some concluding comments about their Botball experience. By going over our team notes we can reflect on how we did during the season. Hopefully next year we will be able to look back at our BOPD and use it as a guide. New members will get a chance to see what its like to be on a Botball team.

Team Comments:

Botball has been a very interesting experience. All the team members have learned a lot. And it has not just been about building robots. We all joined because it sounds cool to build robots, but we have learned more than that. Being on a team teaches you things about yourself and about getting along with others.

We learned all about agriculture when we were making the Research and Design website. This was something we didn't know before. Even Mrs. R didn't know some of the things. We came up with a good idea and designed a robot. Some people even ask if we really built the robot and does it work. I guess our idea sounded like it really might be something that could be built.

We are all going to continue working on our robot to make it better for NCER. Three of us are going for sure to Hawaii. We want to do more things with the robots. We want to do a lot more programming.

After we come back from regionals we will be starting a new schedule for our robotics. Two days a week we will be working on our tournament bots (we also want to help Mrs. R, Mrs. C and Mrs. E with the beyond botball robots). One day a week we will work on our papers for NCER. We have already started but no one is finished. Another day we are going to make some movies and animations and art work for a showcase at NCER. And the last day we are building some different kinds of robots. We have several kits. We will write a paper about them and whether they are real robots or not.

Botball has been great!!!!

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