Project Planning • Preparing for a Competition

Competition Schedule

Project scheduling for competitions varies based on the size of the team, the complexity of the competition, and the resources available to the team. All projects can be broken into four stages: ideation/design, build/integrate, testing, and competition preparation.

Ideation / Design Stage		
1.	Background Research	• Define the problem • Identify team resources • Identify team strengths • Identify team weaknesses • Recruit talent
2.	Scheduling	• Identify key dates • Select team roles (these can change) • Identify adult mentors who will work with each team
3.	Concept Development	• How will I play the game? • Which sensors? • What types of activated mechanisms. • What types of mechanical mechanisms
4.	Prototype	• Build prototypes • Test ideas • Test sensor feasibility
5.	Preliminary Design Review	• Review game rules • Present game concept to teams • Review schedule • Assign deliverables
Build and Integrate		
6.	Build Robots	• Build 2 identical robots if possible; one to develop mechanics and one for the programmers. • Develop working manipulators • Test new parts • Keep design simple and robust
7.	Programming	• Review motion requirements • Identify and test multiple strategies • Save backups of all programs • Begin testing
8.	Check Schedule	• Schedule design reviews where teams can discuss issues • Project Manager re-allocates resources as needed

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Testing		
9.	Detail Design Review	• Review final design • Review game strategy • Review programming • Review research responsibilities
10.	Testing	• Allow as much time for testing as possible • Begin to test using game conditions • Use fresh batteries
Build and Integrate		
11.	Directions / Time	• Make sure everyone has a copy of directions to the venue. • Make sure everyone on the team knows the time of the event
12.	Programming	• Bring extra copies of your software • Make backups of your programs • Make sure that team members are prepared to discuss their software design.
13.	Hardware	• Bring extra batteries • If the design of you robot makes it too difficult to change batteries you may consider bringing an extra robot with new batteries. • Bring spare LEGO parts, sensors, and wires in case a part breaks or your team decides to change the design.
14.	Research Presentation	• Be sure that each person on the research presentation team has an alternate. • Schedule adult mentors to listen to your presentation before you get to the competition. • Practice your presentation and make sure that all technology works.