

STRATEGIZING & SCOUTING

Winning a FIRST Match

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OVERALL PERSPECTIVE

For Inspiration and Recognition of Science and Technology

- ❖ To create an environment to Inspire and Recognize Science and Technology.
- ❖ To participate in all learning experiences offered through FIRST i.e. programming, electrical, mechanical, animation, management, organization, etc.
- ❖ To learn the most and do our best in all aspects that we choose to participate in.
- ❖ Winning is not everything..... Giving our best is....
- ❖ However, if we choose to compete, there is nothing wrong with choosing to “Win”..... Thus strategy....

COMPONENTS OF WINNING A MATCH

❖ Understand the Game

- Thoroughly understand the rules. Rely on “black” and “white” areas, but be prepared for those “grey” areas.

❖ Set Realistic Expectations and Goals

- Don't limit your vision, however your expectations should be set at a realistic and achievable level.

❖ Know your Creation Potential

- Be realistic about your teams build potential.

❖ Be Real..... about your Bots Potential

- Be honest about your bots capabilities and strategize accordingly.

UNDERSTANDING THE GAME

- ❖ Begin by understanding the game fundamentals i.e. layout, field components, potential obstacles, etc.
- ❖ Thoroughly understand “all” scoring components.
- ❖ Prioritize scoring options by determining if there is a dominating strategy.
- ❖ Evaluate how realistic these strategies can be executed and if there are defenses to easily counter these strategies.

SET REALISTIC EXPECTATIONS AND GOALS

- ❖ Understand the program before committing to unachievable goals.
- ❖ Expectations should always extend the team, but be realistically achievable.
- ❖ All goals should be achievable giving the team a sense of accomplishment.
- ❖ Realistic expectations and goals can only be set if you fully understand your resources and time commitments.

KNOW YOUR CREATION POTENTIAL

- ❖ Determine mentoring support and their commitments.
- ❖ Understand student levels and their background and interests.
- ❖ Evaluate resources i.e. tools, machines, electronics, etc.
- ❖ Commit to a bot that fits within the teams build potential, a reliable running robot can always be competitive.

BE REAL ABOUT YOUR BOTS POTENTIAL

- ❖ The most important component of winning a match is fully understanding your robots capabilities and potential.
- ❖ Strategize based on your “true” abilities.
- ❖ Basing a strategy on “wishful thinking” will not result in repeatable success.
- ❖ A good strategy is based on fully understanding your ally and your opponents.

MATCH APPROACH

- ❖ Understand all capabilities of the robots that are in the match.
- ❖ Discuss 'strategies' with your ally prior to match play.
- ❖ There should be a primary strategy going into the match, but be prepared to deviate if your opponents don't respond as you expected.
- ❖ Communicate throughout the match.

NEGOTIATING A STRATEGY

- ❖ Negotiations should start with sharing your “true” capabilities with your ally.
- ❖ Hypothesize about the most logical strategy of your opponent.
- ❖ Agree upon the most logical and reliable winning strategy.
- ❖ This is a partnership, be open to your ally’s views.

WHAT'S THE BEST STRATEGY

- ❖ Duh, one that wins or gives you the best chance to win.
- ❖ A strategy that clearly gives your alliance the win is the easiest, however expect your opponents to realize this also and “close the gap”.
- ❖ Closing the Gap – Be willing to sacrifice your preferred strategy by minimizing your opponents win potential.

CHANGING STRATEGIES DURING A MATCH

- ❖ It is recommended that you stick with your primary strategy throughout the match unless your opponents react differently than you predicted or your alliance is not performing as expected.
- ❖ Changing of strategy is directly associated with your ability to predict impacts in real time.
- ❖ Real-time strategy changes are more effective as your understanding of the game increases.
- ❖ Game study is as important as your robot.

COMMUNICATION

- ❖ Real-time communications are a must.
- ❖ Coach to driver communication
 - Reassurance and strategy deviations
- ❖ Driver to driver communication
 - Intentions and timing
- ❖ Coach to coach communication
 - Assistance requests, potential conflicts and strategy changes

MATCH OUTCOME

- ❖ Analyze the outcome of each match including the performance of each robot.
- ❖ Research your robots failures and immediately address fixes.
- ❖ Identify limitations of your bot and make sure this information gets to your driving team.
- ❖ Don't become complacent with each win, pre-match checks should be performed as if the component just failed and if every match is for the championship.

WIN OR LOSE

- ❖ Losing often teaches more than winning.
 - The best competitors are those who fully understand and experience losing.
- ❖ Champions are those who accept losing, but have a strong desire to “decrease” its recurrence.
- ❖ “I” don’t subscribe to winning at all costs.
- ❖ In our sport, there are only WINNERS.....