School Name

Team Name

Robot Name

Team Picture

ROBOT CONSTRUCTION

A main picture of your robot

In 1 brief paragraph, explain the basics of your design. Explain some of the basic reasoning behind some of the main design decisions or what directed the design of your robot. It is also here that you may include information on why you named your robot as you did, if you feel it is important. (ex. We designed our robot around the wheel structure and defensive cage. Because of the wheel structure, we made a very long base for the robot … etc)

Design specifics

Here is where you will explain the specifics of your designs. Be sure you include every structure that is being manipulated by your program, however if they are used together you may group them accordingly (ex. the wheel structures). For each piece you include, also include at least one picture specifically of that hardware piece. Also label each section with a letter (starting with A) so that it can be referenced in the programming section of your documentation)

Include the following parts of your robot.

- Any Defensive Structures
- Any Offensive Structures
- Sensors
- Motors
- Anything else that defines your robot

ROBOT PROGRAM

A main picture of your program (this will likely be zoomed out too far to read anything, but it is here to give the judge a general overview of programming structure. As you add the images below for specific parts, be sure to add the reference numbers to show were they are located.

In 1 brief paragraph, explain the basics of your program. Explain some of the basic reasoning behind some of the main programming decisions or what directed the flow of your program. (ex. We created our program to have 2 main threads, one to keep the sensor information up to date and one to control the movements of the robot … etc)

Programming specifics

Here is where you will explain the specifics of your programming. Be sure you include each of the hardware manipulations you described in the hardware specifics section, and be sure to specify which you are talking about with the letters (ex. this is the programming for the wheels (structure B)). For each section, supply a zoomed in screenshot. Label each of these screen shots with numbers, and place the number on the main zoomed out picture to identify the location of this code portion.

Include the following parts of your robot.

- Any Parallel Programming and how it is used
- Any MyBlocks that you used
- Looping
- Sensors Readings
- Motors Manipulations
- Anything else that defines your robot

Documentation Specifics

SOME OF THE ABOVE PARTS WILL BE COMBINED.

It is your job to thoroughly cover your entire program in a clear way, while removing redundancy, and keeping the documentation to a minimum. Remember that this is the only way you will really get to thoroughly explain your mechanical design and code structure, so take advantage of it.

Along with the documentation, there will be a 2-5 minute session with the judge. It is here that the judge will look at your sumo robot to check for illegal pieces (anything not included in the 2 sets you were given 9797 and 9648) and allow you a chance to answer any questions they may have. They may also request to see your program, so bring it on a USB Drive or CD.

Your Documentation Must have all the following

- Be stapled
- Have page numbers and your Team name in either a header or footer
- Your final program (from this documentation) on a USB drive or CD saves as a .rbt file.
- Your code MUST have written documentation in the file to clearly state what is being done.

Remember that your documentation is a huge part of the sumo competition, and therefore will be worth a large number of points.