Programming Rubric

Cri-teria	General:	Use of Programming Language	Modularity/Abstraction	Sensor Control	Design
	The code is easy to read and well documented Team demonstrates good knowledge of code and can describe its functions Overall code is appropriate for team's game strategy	Team members demonstrate use and understanding of the programming language Understanding of program logic, subroutine, loops and if-then Team demonstrates understanding of programming structure, modules and layout Program had appropriate use of variables	Use of variable/subroutine names Program is modular in design Program has efficient use of code and program compactness There is flexibility of programming modules to changes	There is adequate use of sensor control in programming There is appropriate control and processing of sensors variables There is flexibility in sensor control Integration of sensors& modularity	The program is easily modified and debugged Program is logically organized There is appropriate program design to match robot design The team understands the design process
0-4 Poor	The code is not easy to read and not documented Team does not demonstrates knowledge of code and can not describe its functions Overall code does not match team's game strategy	Team members can't demonstrate use and understanding of the programming language, Understanding of program logic, subroutine, loops and if-then Team can not demonstrate understanding of programming structure, modules and layout Program doesn't have appropriate use of programming variables	No use of variable/subroutine names Program is not modular in design Program has little efficient use of code and program compactness There is little to no flexibility of programming modules to changes	There is no use of sensor control in programming There is none to little control and processing of sensors variables There is no flexibility in sensor control determined experimentally There is no integration of sensors control and modularity	The program is not easily modified and debugged Program is not logically organized There isno appropriate program design to match robot design The team does not understands the design process
5-8 Fair	The code is easy to read but not documented One or two team members demonstrates some knowledge of code and can describe some its functions Overall code works for some of team's game strategy	One team member demonstrates some use and understanding of the programming language, understanding of program logic, subroutine, loops and if-then One team member demonstrates some understanding of programming structure, modules and layout Program doesn't have appropriate use of programming variables	Some use of variable/subroutine names Program is not modular in design Program has some efficient use of code and program compactness There is little flexibility of programming modules to changes	There is minor use of sensor control in programming There is minor control and processing of sensors variables There is little to no flexibility in sensor control determined experimentally There is minor Integration of sensors control and modularity	The program can be modified and debugged with some work Some parts of the program are logically organized There is some appropriate program design to match robot design One team member understands the design process
9-12 Good	The code is easy to read and documented One or two team demonstrates fair knowledge of code and can describe its functions Overall code works for some team's game strategy	Some team members demonstrate use and understanding of the programming language, understanding of program logic, subroutine, loops and if-then Some team members demonstrate understanding of programming structure, modules and layout Program had some appropriate use of programming variables	Some use of variable/subroutine names Program is modular in design Program has some efficient use of code and program compactness There is some flexibility of programming modules to changes	There is some use of sensor control in programming There is some control and processing of sensors variables There is some flexibility in sensor control determined experimentally There is some Integration of sensors control and modularity	The program can be modified and debugged with minimal work Program is mostly logically organized There is some appropriate program design to match robot design A few team members understand the design process
13-16 Very Good	The code is easy to read and well documented Several team members demonstrate good knowledge of code and can describe its functions Overall code is appropriate for team's game strategy	Most team members demonstrate use and understanding of the programming language, understanding of program logic, subroutine, loops and if-then Most team members demonstrate understanding of programming structure, modules and layout Program had appropriate use of programming variables	Some use of variable/subroutine names Program is modular in design Program has some efficient use of code and program compactness There is flexibility of programming modules to changes	There is adequate use of sensor control in programming There is control and processing of sensors variables There is some flexibility in sensor control determined experimentally Integration of sensors control and modularity	The program is easily modified and debugged with minimal work Program is logically organized There is appropriate program design to match robot design Most team members understands the design process
17-20 Excellent	The code is easy to read and well documented All team members demonstrates good knowledge of code and can describe its functions Overall code is appropriate for team's game strategy	Team members demonstrate use and understanding of the programming language Understanding of program logic, subroutine, loops and if-then Team demonstrates understanding of programming structure, modules and layout Program had appropriate use of variables	Use of variable/subroutine names Program is modular in design Program has efficient use of code and program compactness There is flexibility of programming modules to changes	There is adequate use of sensor control in programming There is appropriate control and processing of sensors variables There is flexibility in sensor control determined experimentally Integration of sensors control and modularity	The program is easily modified and debugged Program is logically organized There is appropriate program design to match robot design The entire team understands the design process