BUILD RUBRIC

Behavior	Details	3 (At or Above Criteria)	2 (Near Criteria)	1 (Below Criteria)	0 (No evidence of Criteria)	Notes
Preparation	• Parts are gathered and organized					
Control System	 Completely functional control system with all expected system behaviors 					
Electrical System	 Battery charged Wire routing safe, efficient and completely functional 					
Mechanical Systems (arm, claw)	Completely functional					
Resources	 Focused on task throughout the project Shows the team's efficient use of time 					
Teamwork	 Shares problems and contributes to possible solutions Demonstrates that all team members were involved in the entire project 					
Totals						

COLLABORATION RUBRIC

Behavior	Details	3 (At or Above Criteria)	2 (Near Criteria)	1 (Below Criteria)	0 (No evidence of Criteria)	Notes
Organization	 Assigns roles among the team based on individual strengths Creates a detailed division of work and assignments among the team Creates an agreed upon timeline to complete the task Work area is organized Prepared and ready to start the task at the beginning of class 					
Project Management	 Develops a specific plan for task completion Adjustments are reflected and updated as needed Focused on task throughout the project Class time is used wisely 					
Communication	 Shares problems and contributes to possible solutions Reflects on ideas with respect Uses the technology tools agree upon to share and store ideas Uses feedback from others to improve 					
Equal Participation	 All members are engaged throughout the class All members participate in discussions 					
Respect/ Conflict Management	 All team members' ideas are valued Team accomplishments are celebrated across the team All members listen attentively to others Constructive comments are given in to others in a sincere manner The team settles differences among team members in a thoughtful, direct way 					
Totals						

ENGINEERING NOTEBOOK RUBRIC

INDIVIDUAL REFLECTIONS

Behavior	Details	3 (At or Above Criteria)	2 (Near Criteria)	1 (Below Criteria)	0 (No evidence of Criteria)	Notes
Content	 Response to assigned topic is thorough Response contains correct vocabulary usage Opinions are supported with facts 					
Iteration	 Possible solutions are listed with well thought out descriptions and examples. Observations are written clearly Diagrams are clearly labeled 					
Chosen Solution	 Description(s) of the chosen solution(s) are detailed 					
Organization	 All entries and drawings in the notebook are neat and easy to navigate All calculations, measurements and formulas used are clear and accurate 					
Mechanics	 Correct spelling and punctuation 					
Totals						

ENGINEERING NOTEBOOK RUBRIC

TEAM PROJECTS

Behavior	Details	3 (At or Above Criteria)	2 (Near Criteria)	1 (Below Criteria)	0 (No evidence of Criteria)	Notes
Introduction to Challenge	 Describe the challenge in detail with words and/or pictures 					
Iteration	 Possible solutions to the challenge are listed with descriptions and examples 					
Chosen Solution	 Description of the chosen solution and detailed explanation of why it was selected 					
Creating the Solution	 Records the building and/or programming process with enough detail that the process could be recreated by someone not from the team 					
Testing and Alterations	• Describes the methods used to test the solution and provided detailed notes on troubleshooting and any redesigns needed					
Organization	 All entries in the notebook are neat and easy to navigate All drawings and diagrams are neat, accurate, and labeled correctly All calculations, measurements and formulas used are clear and accurate 					
Resources	 Focused on task throughout the project Shows the team's efficient use of time Illustrates the good use of human resources by assigning members roles based on their strengths 					
Teamwork	 Creates a detailed division of work and assignments among the team Shares problems and contributes to possible solutions Demonstrates that all team members were involved in the entire project 					
Totals						

PROGRAMMING RUBRIC

Behavior	Details	3 (At or Above Criteria)	2 (Near Criteria)	1 (Below Criteria)	0 (No evidence of Criteria)	Notes	
Planning	 Program is completed on time Purpose of the program is clear The user interaction once the program begins is clear All parts of the program seem to fit the solution to the challenge Pseudocode is complete and has been presented to the teacher The program was saved in the correct place with the proper name 						
Design	 Program logic is correct, with no redundant or contradictory conditions Includes new programming blocks/skills presented in the STEM Lab 						
Comments	 Contains information that clearly helps the user go through or understand the program 						
Execution	 The program repeatedly solves the challenge in a consistent manner 						
Totals							

PSEUDOCODE RUBRIC

Behavior	Details	3 (At or Above Criteria)	2 (Near Criteria)	1 (Below Criteria)	0 (No evidence of Criteria)	Notes
Configuration	• The pseudocode includes a description of the robot configuration that will be used for the challenge					
Decomposition	• Exhibits analysis of the problem by breaking it down into smaller tasks					
Code/ Comments	 Written to be easily converted into comments and code Statements are clear, neat, and easily understood by someone not on the team 					
Sequence	 In the correct order and will present the code in a proper sequence Displays correct program flow indicated by statements, visuals, or arrows 					
Totals						