

Major Project - Create an arcade-style claw machine that can pick up various toys and small pieces of lab equipment from a 1x1m square area. The points for each object will depend on its dimensions. Your score for the project will be the total of the retrieved objects.

Team / Committee Assignments

Claw & Syringes <ul style="list-style-type: none"> - Build and test the upper arm of the hydraulic claw - Select from the design options for the claw itself - Upload and print the claw on the 3D mini printer. 	Rotating Base <ul style="list-style-type: none"> - Select from the design options for the base of the claw - Build and test the base and the controls for turning the arm. 	Display & Driver Station <ul style="list-style-type: none"> - Design, upload and print required pieces on the 3D mini printer. - Create an operating station to control all of the necessary switches, syringes, levers or buttons for the <i>driver</i>. - Design and build the <i>playing field</i> for the challenge within the limits of the claw itself. 	All Students <ul style="list-style-type: none"> - Maintain your journal for the project. - Maintain communication with the other teams. - Use any down time within your own assignment to assist other groups. - Communicate any needs your team has including purchasing or manufacturing parts, design and strategy.
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Team / Committee Assignments

20 / 20 _____	17 / 20 _____	14 / 20 _____	0-12 / 20 _____
Excellence in all parts <ul style="list-style-type: none"> - Your team designed and built a successful piece for the class project - You submitted all work including design plans, and your log book. - Your workspace, tools, and materials were properly used and returned. 	Strong <ul style="list-style-type: none"> - Your team designed and built a successful piece for the class project - You submitted all work including design plans. - Some aspects of maintaining a journal, or your workspace were overlooked. 	Passing <ul style="list-style-type: none"> - Your team designed and built a piece for the class project that was in some way incomplete or failed to meet the task. - Some aspects of maintaining a journal, or your workspace were overlooked. - Some aspects of collaboration with the other groups were missing. 	Incomplete <ul style="list-style-type: none"> - Your team did not design or build a successful piece for the class project - Work including design plans, and your log book were not submitted. - Your workspace, tools, and materials were not used properly.

Comments: