



Robotic Arm

Aerospace Spinoffs Day 1



Situation

NASA's robotic arm that is used by the space shuttle was created by a company from Canada. The company also makes robots that are used in factories. The company is now looking for a robot design that can lift heavy objects.



Problem

Your team must design and build a robotic arm that can lift a Lego weighted block and move it from one place to another.



Objectives

Students will use creativity and problem solving to build a robotic arm. Students will learn to manage time and resources.



Materials

- 1 Lego Technic 1031 set per group
- 1 set of reference cards per group



Requirements

Your grade will be based on the following performance:

You must present a robotic arm that can lift a Lego weighted brick, and move it to another spot. Your robotic arm must rest on the table. It should also be mounted (attached) to a base that will not move.

- A = robotic arm picks up and moves the weight without any problems
- B = robotic arm lifts the block but cannot move the block
- C = robotic arm rotates/pivots but cannot lift or move the block
- D = robotic arm presented but does not work at all
- F = no arm presented