

Robotic Arm Autodesk Inventor Design Challenge

- Form groups consisting of 1-3 people
- design a robotic arm in Inventor by the 5th of January
- submit designs to Andy, Austin, or Chris
- judging will be done by the lead design mentors and captains
- The winning design will be awarded the Team 1912 Robotic Arm Autodesk Inventor Design Challenge Award and a waiver on T-shirt costs (1 shirt per winner with a maximum of 3 shirts per design team. All design team member must have already paid his or her dues.)

Specifications

- the base of the arm may not exceed the dimensions of a standard FIRST FRC robot
- the arm must have multiple degrees of freedom
- the arm must have a gripper/hand at the end of it
- the gripper must be able to manipulate objects
- the arm must be strong
- the arm must have a useful range (reach)

Judging criteria

- high strength
- many degrees of freedom
- high practicality
- low cost
- high reliability
- high range of motion
- follows guidelines

Think about as many ways to power the arms movement as you can before deciding on your design. Two examples are pneumatics and dc motors.

*If it can be easily attached to DOOM or Nutcracker it will have a higher chance of being selected