## The Pick-Up Challenge

**Type of Competition:** Team

**Composition of Team:** Team (1 or 2 persons per team)

**Overview:** To design and build a device that will be able to safely pick up things.

**Materials:** 2cups

3 ft of string (twine, cotton string, yarn)

10 rubber bands

1 pair plastic gloves,

10 coffee stir sticks

10 craftsticks

2 sheets of paper

10 straws

Roll of tape (scotch or masking).

Pair of scissors

Amount of materials can vary, and should be based on your availability

Materials to be picked-up (chemicals) can also vary, but may include empty 16 oz water bottles, half-filled 16 oz water bottles, empty soda cans, small soup cans, small boxes, etc. Having a variety is best.

**Story:** You are cleaning your school’s laboratory, and come across some

mysterious and dangerous looking “chemicals.” You can’t touch the

chemicals directly, and they need to be moved as quickly as possible. With the spare materials in your classroom, make a device that will be able to pick up as many of the “chemicals” as possible.

**Constraints:**

1. Must be a working model with moveable parts. Tape cannot be used by itself, or as a “lasso” to pick-up objects.
2. Must be able to pick up objects without outside assistance, like from other team members or other devices
3. Device must be self-contained (eg. device cannot be anchored or tethered).
4. Device must be controlled only using one hand/arm.
5. Only a single device can be built.

**Metrics:**

Successful teams will be those that can pick-up the most objects (of those provided) and/or the heaviest objects.