

The Prosthetic Hand

A gripping problem



Using only the materials given, design a 3-finger prosthetic hand that can pick up a wad of paper.

Materials - Every team should have the following materials:

- 2 syringes
- 2 ft of tubing
- 3 paperclips
- 5 straws (2 sizes of each)
- 1 meter of tape
- 10 popsicle sticks
- 5 rubber bands
- 1 meter of string
- 3 index cards
- 3 pipe cleaners

Engineering Constraints

- The hand must be made from only the approved materials.
- The hand cannot be taped or attached to the table in any way.
- The hand must use hydraulics to pick up the paper.

Your Team Must Perform According to These Guidelines:

- All members of the team must participate.
- The members of the team must come to a consensus on the design and construction of the hand.
- The hand design and construction must be completed within the timeframe stated.
- The team's hand must be tested in front of the class, passing the same test as all other hands.