

RULES AND REGULATIONS



TEAMS

- Teams must have four members
- Teams must be mixed-gender
- Each team must be accompanied and supervised by an adult leader

CHALLENGES

Each contraption will be judged at the Quarterback Challenge based on its performance in the following challenges:

1. Longest throw: Each team gets 4 attempts with 25 seconds in between attempts to make adjustments.
2. Surprise challenge: Each team will be assigned one of the following challenges but will not know which one until they arrive at this station. It will either be:
 - a. Most throws in 30 seconds OR
 - b. Most accurate throw
3. Interview of team by judges regarding the process by which they developed and built the contraption. The team should be prepared to describe the science and engineering principles that allow the contraption to operate.
4. Contraptions will be examined to make sure they meet the design criteria as outlined below. Points will be deducted for criteria not followed. Extra points will be given for anatomical accuracy.

DESIGN CONSTRAINTS

The quarterback contraption...

- Must be built to mimic the human body
- Must be made up of a series of simple machines acted upon by pull-based forces.
- Cannot utilize electricity or magnetism in any way.
- Must be free standing.
- Must be initiated by a release of potential energy within the contraption system.
- Must cost under \$50 to build.

A 9" Nerf (foam) football will be used for all throwing challenges.

For more information, please email TheresaStets at theresa@raftcolorado.org

PRESENTED BY:

