1 Object

The object is to design and build a device which, in collaboration with a teammate’s device, will move the center-link of a chain from inside the start zone to a position as high as possible up a sloping surface of plastic mesh. At the start of each contest, the team’s devices must be connected by the chain. The team with its center-link higher at the end of 48 seconds wins. In the contest, each device will strive to combine speed, strength, creativity, finesse, guile, strategy, etc., to cooperate with, complement and assist its teammate’s device in outperforming the opposing team’s devices.

The “contest arena” is a sloping surface of plastic mesh, with diamond-shaped openings approximately on 12 mm (0.5 inch) centers. The lower end of the sloping mesh is 1.22 m (4 feet) wide and is mounted horizontally about 460 mm (18 inches) above the floor. The upper end of the sloping mesh is 400 mm (15.75 inches) wide and is approximately 3 m (10 feet) above the floor, and is sloped nearly vertically. The upper end of the mesh is flexibly supported by a swivel connection.

At the start of the contest, each team’s devices will be positioned within a painted rectangle located on each side of the lower portion of the mesh.

Each device will operate via radio control from a joystick tower containing a radio transmitter. Electrical power will be supplied to each contestant’s transmitter for 44 seconds. A battery pack and receiver/control module, carried by the contestant’s device, provides four independent channels of electrical power. Two channels are continuously modulated by use of a two-axis joystick and two channels are modulated by slide potentiometers and switched by a trigger and thumb switch on the joystick.