

Catch Me - Bet You!

Problem statement

In the aftermath of the corruption scams surrounding the government, a news agency decides to bring the truth in public. It hires the best detectives in the town, Team Bug to spy on accused officials. Using high tech gear, these agents will clear the air.

But the world is not a bed of roses. A mole in the news agency leaks the information regarding the impending operation to the accused. They hire the Team Detector to get their houses checked of any infiltration!

We invite teams of four students. Each team has to make a bug and a detector. You have to bring your bug and detector along with you on the day of the competition. You don't have to make it here. When you come to Elan, you will be divided in two sub-teams, Team Bug and Team Detector.

All Bug Teams will be given an hour to hide their bugs in a specific area given by the organizers.

Then the Detector Teams will get 45 minutes to find as many as bugs as possible.

Winning criteria

1. The team whose bug does not get detected wins the Bug Design Challenge.
2. The team which detects the maximum number of bugs wins the Detector Design Challenge.

Prize money Rs.2500 each

Rules

1. Bug

- 1.a Maximum size 10"X10"X5"
- 1.b The antenna length should be at least 10 inches measured from hook-up point and the bug must be detectable within 3 ft radius.
- 1.c Acceptable fluctuation of signal is 10% on both sides.
- 1.d It should work nonstop for at least 2 hour 30 minutes.
- 1.e Maximum power output 50 Watts.

2. Detector

2.a Maximum size 12"X12"X6"

2.b Maximum antennae length 8 inches from hook-up point

3. Common

3.a all bugs/detectors to be hand made.

3.b circuit of the bug/detector to be submitted on day of challenge.

Tie break

A. bugs

If two or more bugs do not get caught, the bug with longest antennae, length measured from hook up point, wins. If the tie persists, the bug with widest range of transmitting frequency wins. If the tie still persists the bug with longest lifetime wins. Finally, the bug with least volume wins.

If the tie still exists, both teams will be declared winners and prize money will be awarded jointly.

B. Detector

If two or more teams catch same no. of bugs, the detector team with least time wins. If the tie persists, the team with smallest frequency range wins. Finally, the detector with smaller volume wins.

If the tie still exists, both teams will be declared winners and prize money will be awarded jointly.

Certification criteria

1. Winning teams will be awarded merit certificates.
2. Participation certificates for all registered teams.