1. **Devices competing to catch falling balloons**

**Interpretation of the project**

In the first project, we are supposed to catch falling air filled balloons via a device/robot while an opponent robot/device is present and tries to catch the falling balloons. The rules for this game are that the competitor robots/devices will not make a physical contact, and that the robots/devices. We are supposed to keep the design in predetermined dimensional constraints. All the subsystems that enable the device functional should fit in the determined dimensions. For demonstrational purpose, a dummy robot that simulates a competitor is required.

During the game, five balloons are dropped by a referee in order and the one that catches the balloon will get the point. After all the balloons are dropped, the winner will be determined by the number of catches. The devices are supposed to catch the balloon before it hits the ground. As the rule suggests, the devices are required to sense its surrounding and are equipped with collision avoidance system.

Moreover, the subsystems to sense environment and to catch balloons should fit into the predetermined. Also, any interference between the sensors of the competitors should be prevented for robust operation.