## Actuator Design:

A picture containing yellow

Description automatically generatedAs proposed in the previous design concept of PDR we were having a setup of Pogo Pins to release the Parachute 2 after achieving a height of 500m. But due to guidelines and mission requirements prohibiting the usage of spring in the CANSAT, we decided to find a substitute parachute deployment system.

After further consideration we are using the following configuration, pair of servo motors and actuators system.

Fig. Placement and Alignment of Servo Motors Acting as the driving element of Actuator Design of Ejection Mechanism

### Diagram Description automatically generated

*Fig2. Servo-actuator is holding the parachute 1 base plate until reaching 500m.*

Diagram

Description automatically generatedBlock diagram for working of actuator system for parachute deployment,

GPS sensor with the help of ATmega328 detect the position of our CANSAT from ground. When the height of our CANSAT goes below 450m, it triggers our servo motors and thus unlocked the upper chamber of our CANSAT, releasing the secondary parachute.