

Theory of operation and observations:-

1. First I started the competition by making a Service Client named as startup_client.
2. Then I started the Conveyor belt. For starting the conveyor belt we need to include `#include <osrf_gear/ConveyorBeltControl.h>` header file.
I then create another Service Client to start the Conveyor belt with the full power.
3. In the next step we need to get the information from the logical camera 2 to return a model when it finds a box under it. But the logical camera returns the model as soon as the flap of the box is under the camera so we have to wait for the z-axis value to be nearest to 0 to halt the conveyor belt.
4. After halting the belt, we need to wait for the box to reach the end so that the drone can come and pick it up.

Observations:-

1. As said we need to halt the belt when the value of z is near to 0 but in my case it halts exactly under the camera when the value of z is around -0.75.
2. When a box is waiting for the drone the conveyor belt stops automatically.