

# Concept

Online Shopping has become a habit and not just a luxury for the most of us. We tend to buy items online and wait for the delivering company to deliver for our doorstep at our convenience. Amazon has patent a gripping mechanism that they have implemented in their delivery drones. However, they still require employees to latch the packages to the drones before they are dispatched out. Since we are designing a drone for the future, we will be redesigning the packaging for easy, smooth and automated packaging. By automating the systems, we can remove the humans and save money and salary and create a new business value for the company.

# Operate

The package will have a special design where it has a lock-key concept to the drone whereas the package will lock on to the drone by its geometry while supported by a servo to release it later on. The package will be transported from a conveyor belt where it will meet a drone that traveled from a separate conveyor belt. When the package has reached the drone and the geometries meet, the factory will signal the drone to lock the package and the drone conveyor belt would transport the old drone away for take off and a new drone for the next packaging.

# Manufacture

The gripping or delivering mechanism will have a structure with special geometry to act as the 'key' and will be 3D printed with a servo attached on it to push the package out after landing during delivery. The package will be made by using laser cut components with a geometries to make the package the 'lock'. On the other end of the package there will be a servo attached to a 3D printed component attached to the drone with an arm to support the package during flight and may be rotated to allow clearance to push the package out for smooth delivery.

# Notes

This idea is to cope with the rapid growth and change of online shopping and requires changes in the infrastructure of the delivery company's packaging facility and also would definitely be beneficial in the future.