DRONE X DELIVERY (DRONELIVERY)

New Delivery Era

DRONELIVERY
Into A Better Future

DRONELIVERY

Motivation

- COVID-19 Pandemic
  - Decreasing Chance of Eating Out
- "Work From Home" Culture
  - Increasing Chance of WFH
- High Demand In Delivery Serivce
  - Increasing Food Delivery Order
  - Increasing Online Shopping
- VR & Metaverse Networking
  - Inmersive Social Networking At Home
  - Online Community

Planning

- Worldwide Operation

  Japan -> Taiwan -> EU -> US -> HK

  Based on:
  - Population Density
  - Building Height
  - Delivery Culture
  - Travelling Distance

Impact to society

- **Reducing Carbon Emission**
  - Using Drones Instead of Trucks
- **Increasing Market Revenue**
  - Faster Delivery Time
  - Increasing Online Purchasing
- **Better Quality of Life**
  - More Convenient to Get Delivery
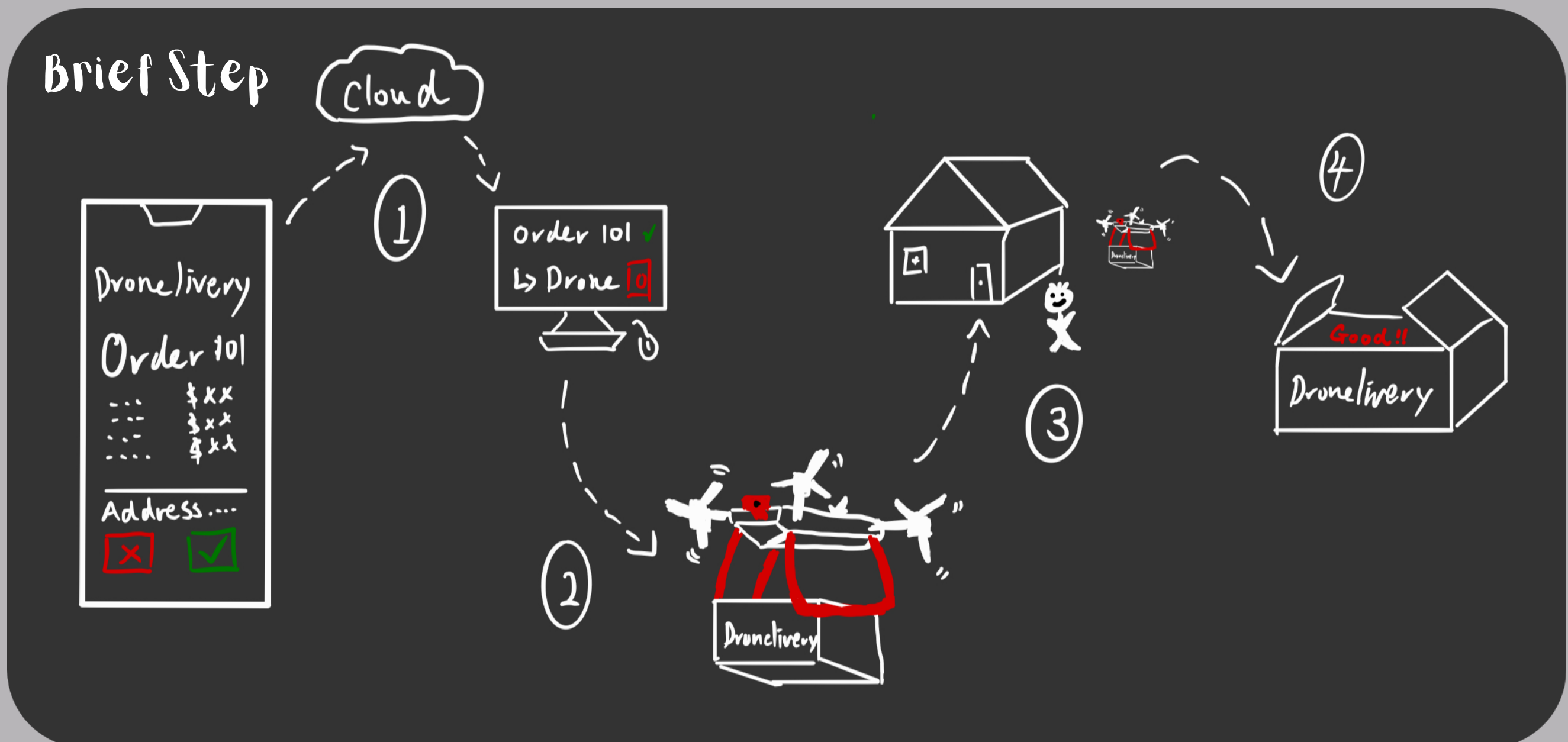 - Instant Order, Fast Delivery, Immediate Use

Technology

- GPS Autopilot
- LiDAR Camera
- Direct Georeferencing
- Machine-To-Machine Communication
- Cloud Database

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How does It Work?

Implementation

Brief Step

Step 1: Order Online -> Transmit data to cloud -> Analyze data -> Send drone
Step 2: Drone autopilot -> Using LiDAR camera to georeferencing
Step 3: Find exact location -> Verify location -> Place order
Step 4: Unpack order -> Drone back to the nearest station

Constraints and Solutions

- *Low Battery Life* (Only 30 minutes flight time)
  Sol: Battery with a larger capacity
         Setting more charging regions around the city.
- *Small bearing capacity* (Less than 5 pounds)
  Sol: Powerful turbo-generator
- *Difficult in detecting specified location and floor*
  Sol: IoT technology e.g. **GPS autopilot** & machine learning
         Machine-to-machine communication using **big data** from Cloud.
- *Privacy in drone travelling*
  Sol: Installing **LiDAR camera** instead of live camera
         Detect surrounding georeferencing image.