

Managing Liability in Open Geospatial Data

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Boeing 747-8
Heading: 123°
Altitude: 40,000ft
Speed: 814mph

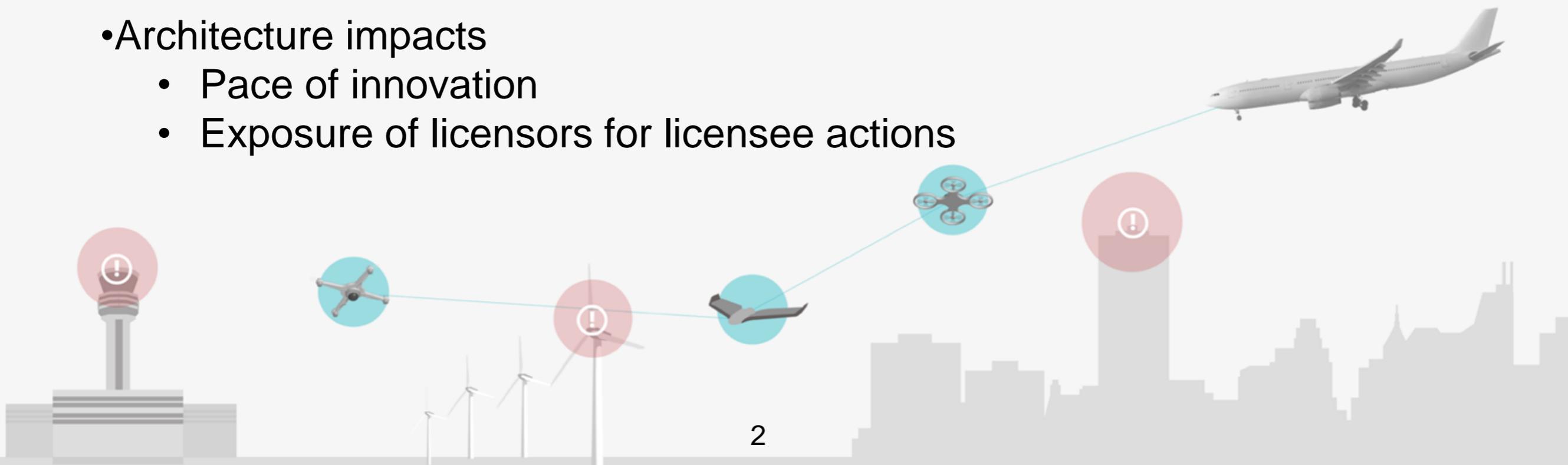
3D Robotics IRIS
Heading: 20°
Altitude: 250ft
Speed: 15mph
72%
NOTIFICATIONS
2:34 PM Following Flight Path
2:17 PM Drone Takeoff
OPERATOR
Operator Name: user@precisionhawk.com
More Details

RC EYE One Xtreme
Heading: 192°
Altitude: 250ft
Speed: 7mph
66%
8:20 AM EST Airspace Reservation Begins

senseFly eXom
Heading: 87°
Altitude: 171ft
Speed: 12mph
68%
8:20 AM EST Airspace Reservation Begins

Closed vs. Open Data

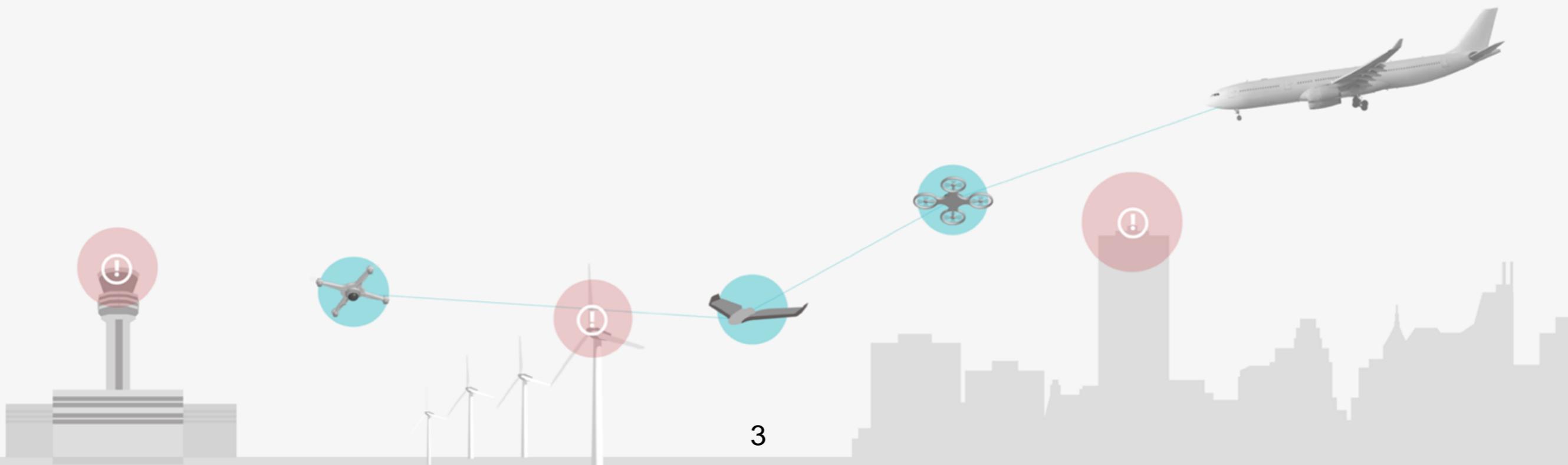
- Closed data
 - Clear distinction between licensor and licensee
 - License terms generally prohibit modification and limit use cases
- Open data
 - Blurs distinction between licensor and licensee
 - License terms typically encourage modification and innovation in use cases
- Architecture impacts
 - Pace of innovation
 - Exposure of licensors for licensee actions



Closed Architecture

Licensors can limit liability and unethical use by licensees by:

- Restricting modification and limiting use cases
 - Allows licensor to predict harm and provide warnings
 - Defense of misuse

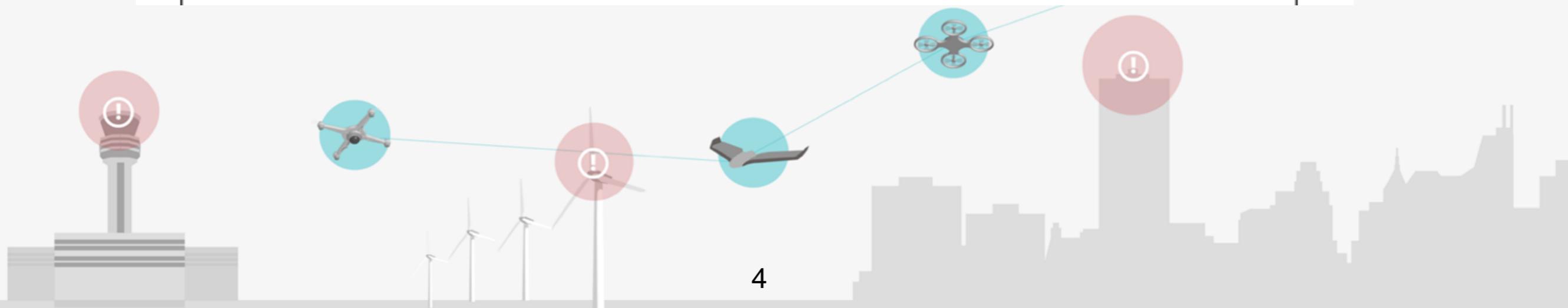


iRobot[®]

Roomba[®]

Vacuum Cleaning Robot

700 series
Owner's Manual



Closed Architecture Limits Liability...

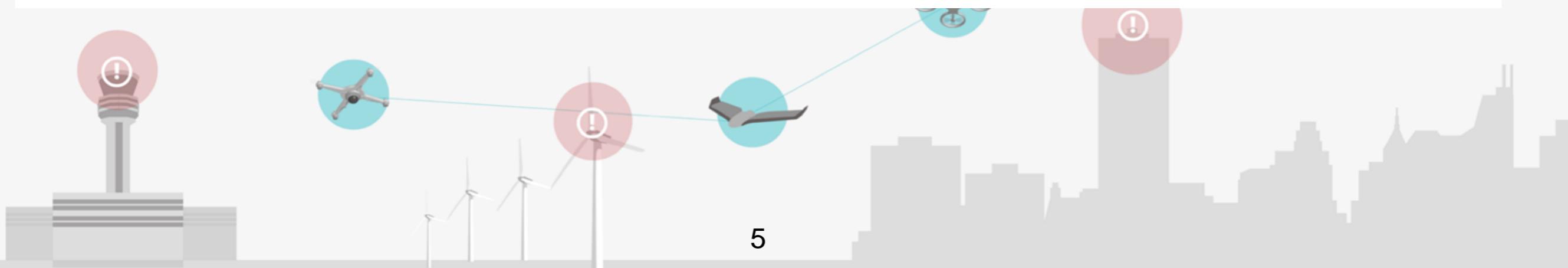
Roomba use

- Roomba is for indoor use only.
- Roomba is not a toy. Do not sit or stand on this device. Small children and pets should be supervised when Roomba is cleaning.
- Clean with a dry cloth only. Do not pour or spray liquids onto Roomba.
- Do not use this device to pick up anything that is burning or smoking.
- Do not use this device to pick up spills of bleach, paint, or other chemicals, or anything wet.
- Before using this device, pick up objects like clothing, loose papers, pull cords for blinds or curtains, power cords, and any fragile objects. If the device passes over a power cord and drags it, there is a chance an object could tumble off a table or shelf.
- If the room to be cleaned contains a balcony, a physical barrier should be used to prevent access to the balcony and ensure safe operation.



Problem solving | Further help

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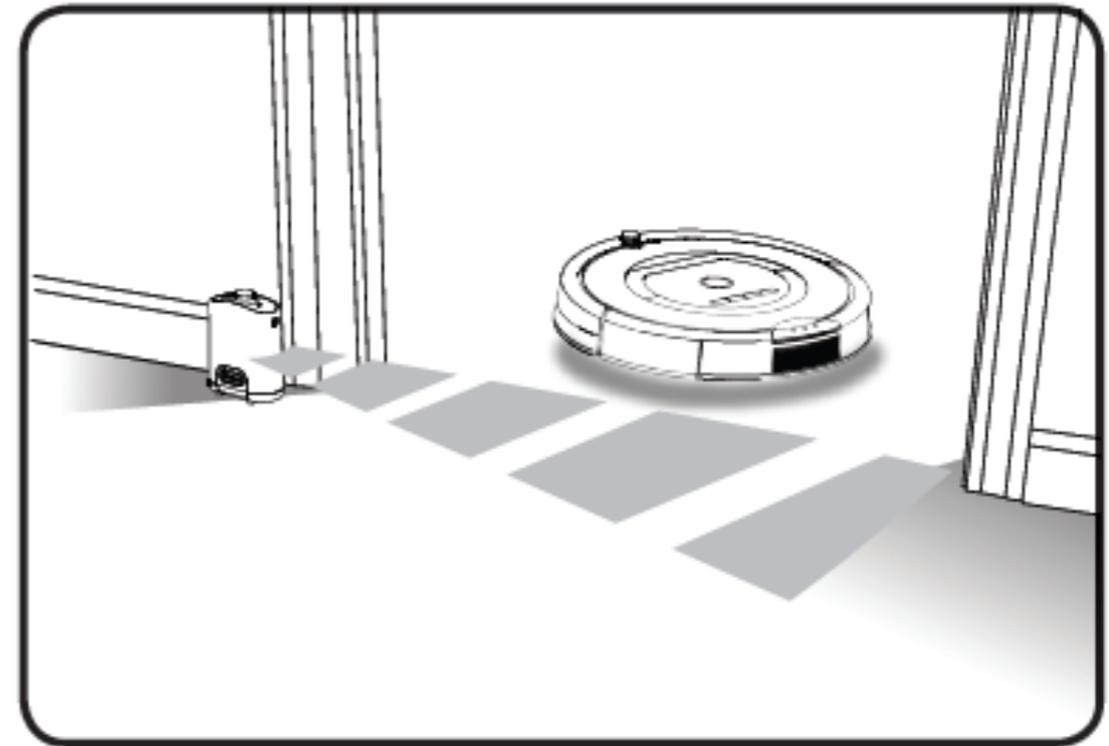


Closed Architecture Limits Liability...

Virtual Wall® Optional accessory for all models.

Virtual Walls create an invisible barrier that your Roomba won't cross. That makes it easy to confine it to a particular room or area, and prevent it from getting too close to anything delicate or dangerous.

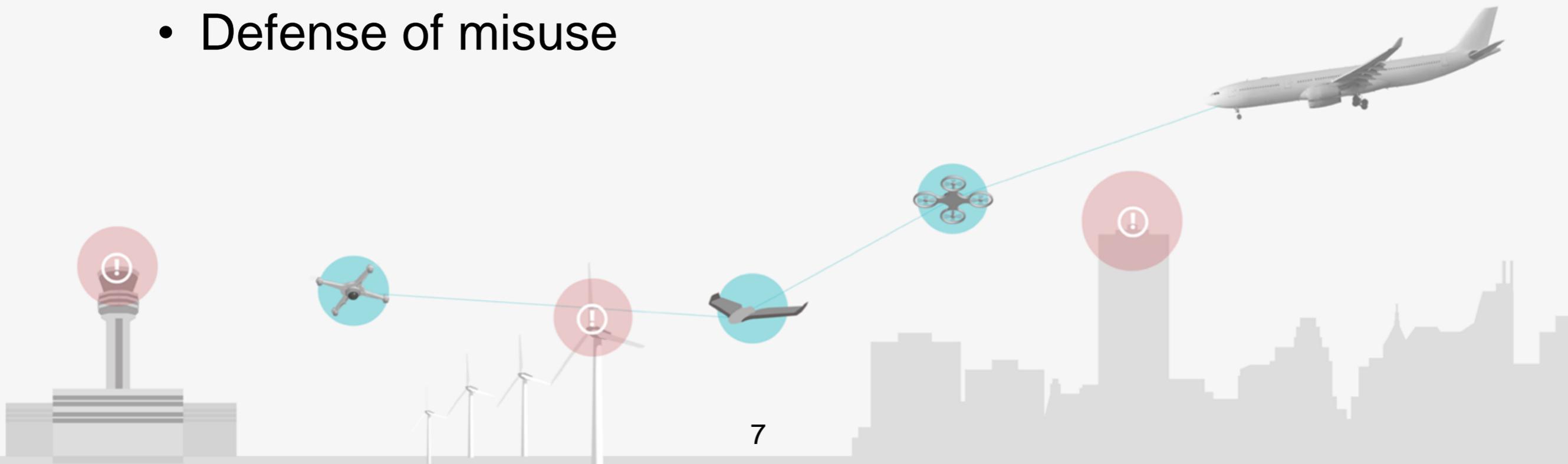
- Each Virtual Wall needs two C alkaline batteries (not included).
- You can set the Virtual Walls to block an opening of up to 7 feet (2 meters). It creates a cone shape barrier, so the beam gradually gets wider.
- For best results, place the Virtual Wall on the outside of the doorway you want to block. Point the arrows on the top towards the opening.



Open Architecture...

• Because subject to modification and innovation in use cases, not subject to traditional risk management tools:

- Safety features
- Product warnings
- Defense of misuse



Need to Reformulate Open License Framework

- Develop a new licensing framework – sufficiently and selectively open
 - Tempers goal of openness with other considerations i.e. liability or ethics
 - I.e. Mapping API allows users to modify and redistribute, but restricts use of data for real-time autonomous vehicle navigation
 - Violation of license terms gives licensor claim for breach of contract and IP infringement

