

Cooperative Aerial Multi-Lifting System (CAMLs)

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Heli Logging



Offshore Transport



Construction Material



HVAC Installation

Vision



Payload Capacity

Small UAV

- ✗ ≤ 100 kg Payload
- ✗ Limited Endurance
- ✓ Low CAPEX & OPEX
- ✓ Low Pollution

Team of UAVs

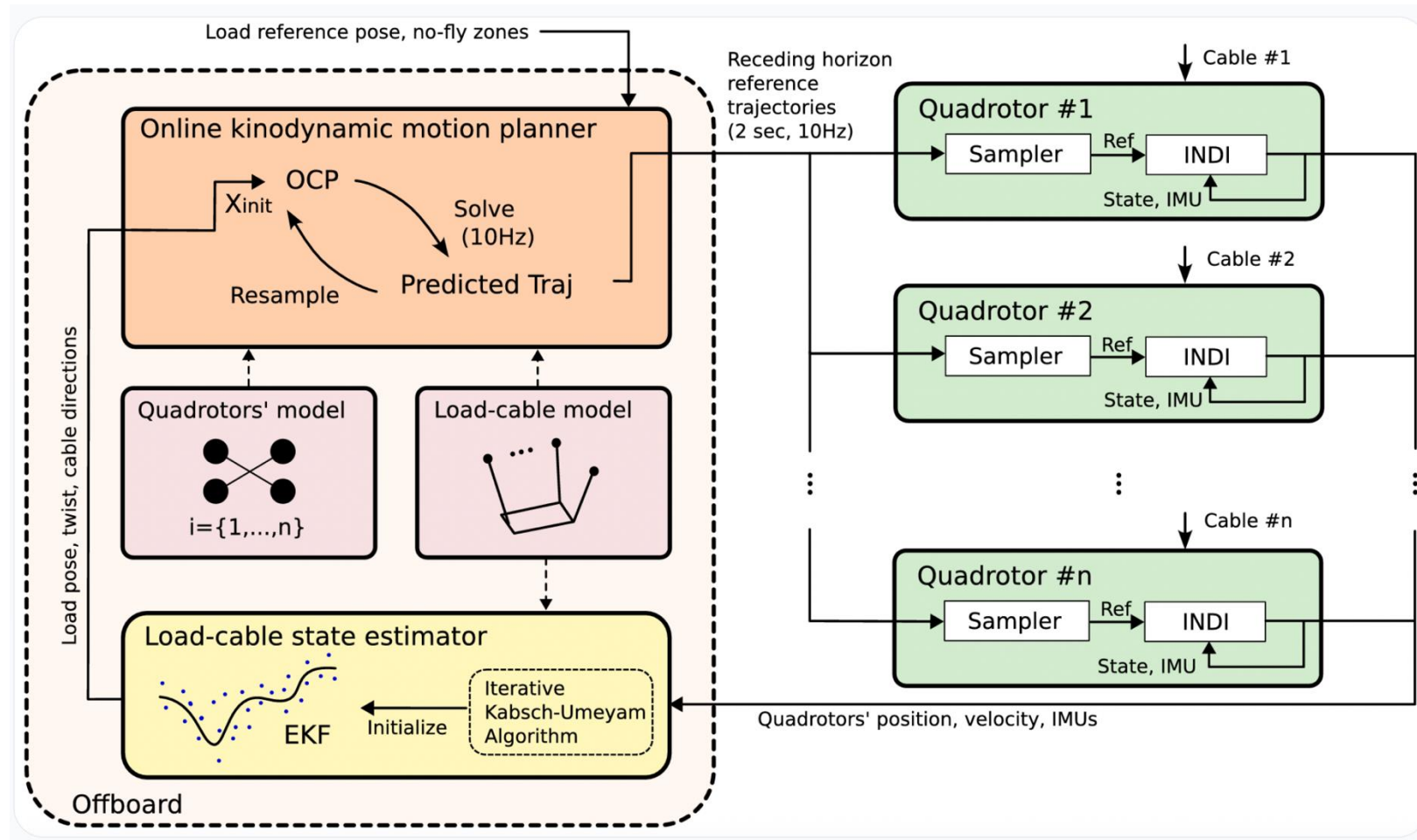
- ✓ 100 – 1000+ kg
- ✓ Medium Endurance
- ✓ Low CAPEX & OPEX
- ✓ Low Pollution

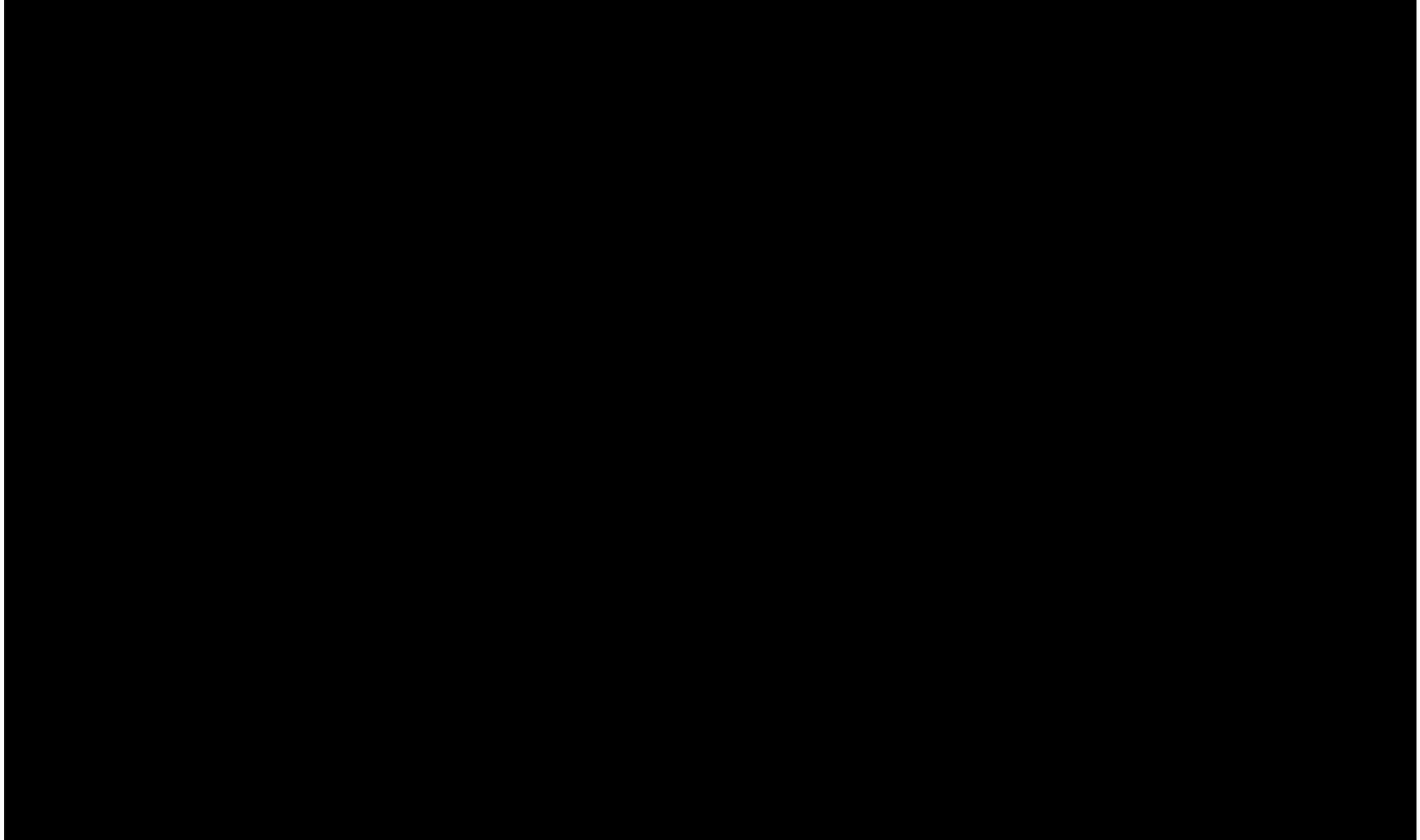
Slung Load Helicopter

- ✓ 1000+ kg Payload
- ✓ High Endurance
- ✗ High CAPEX & OPEX
- ✗ High Pollution

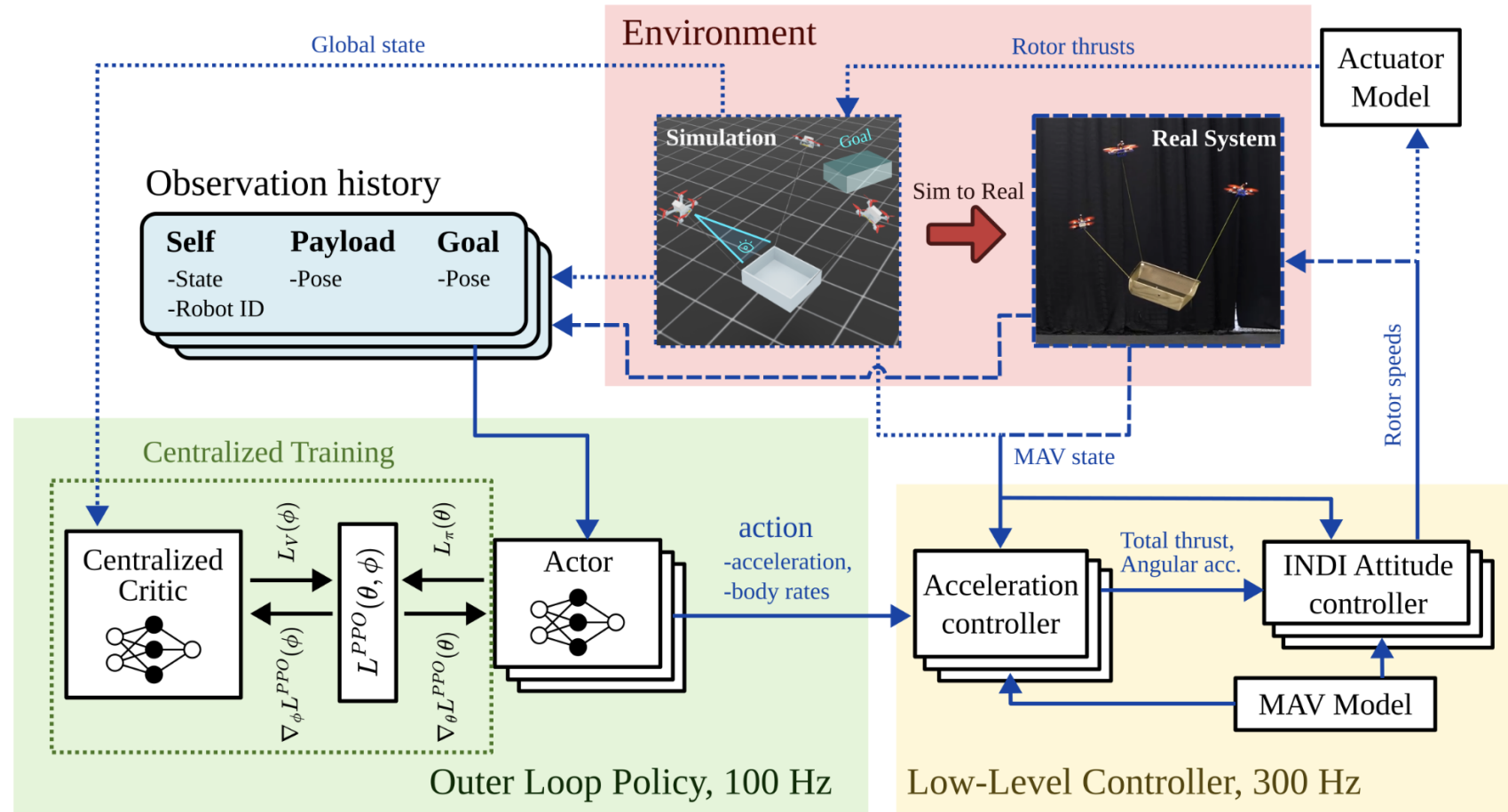
*Our algorithm works
with a team of
autonomous helicopters
as well*

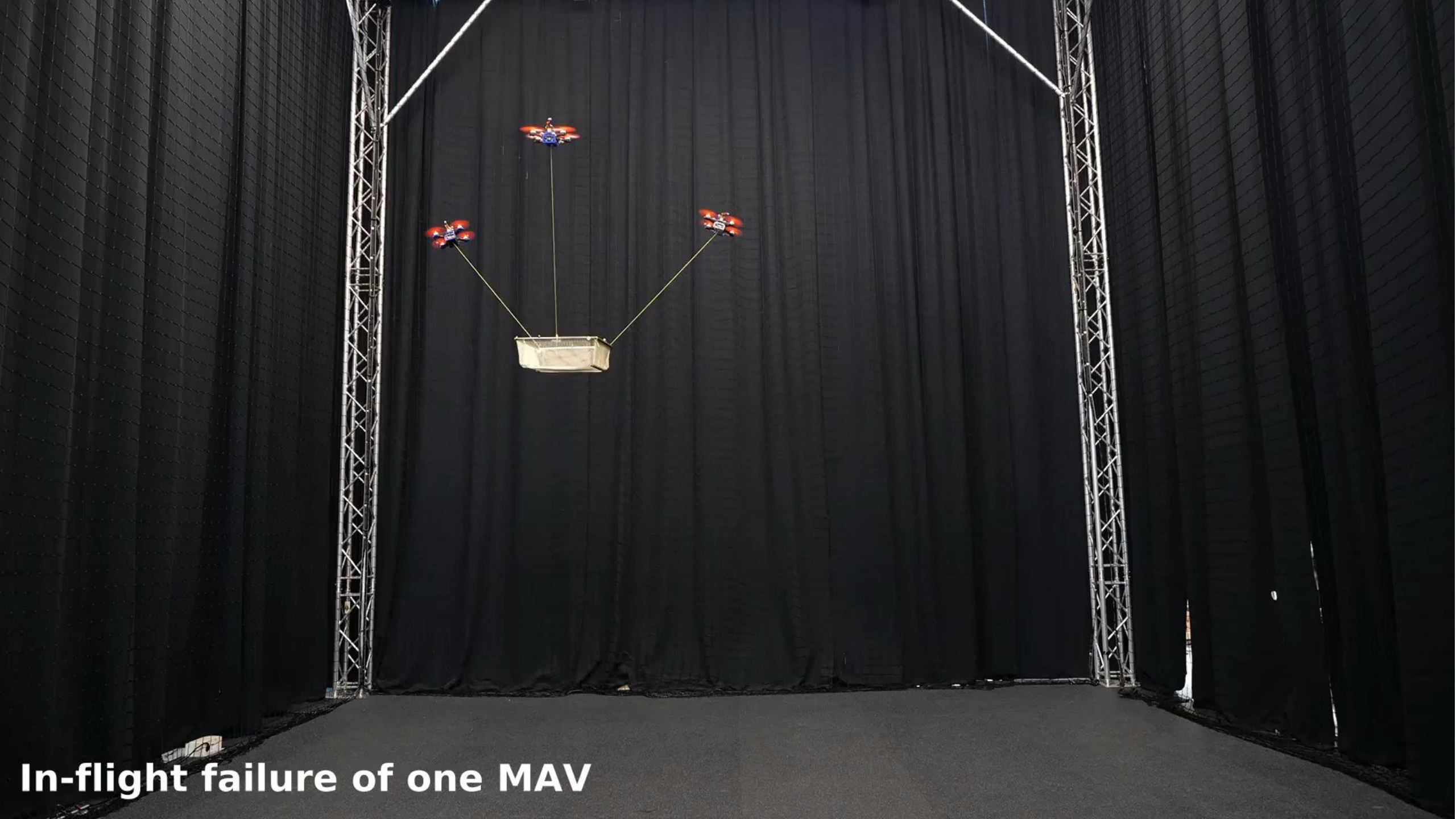
Centralized solution





Decentralized solution





In-flight failure of one MAV

Future (ongoing) works

- Wind effect
- Outdoor state estimation (perception, GPS, sensor-fusion)
- Onboard deployment
- Commercialization



Shantnav
Agarwal



AleksanderSer
emak