

Made for Search and Rescue in Darkness

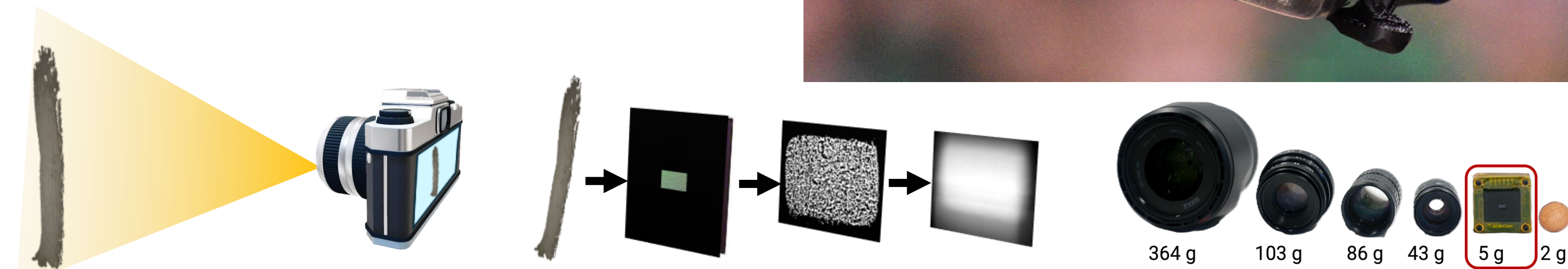
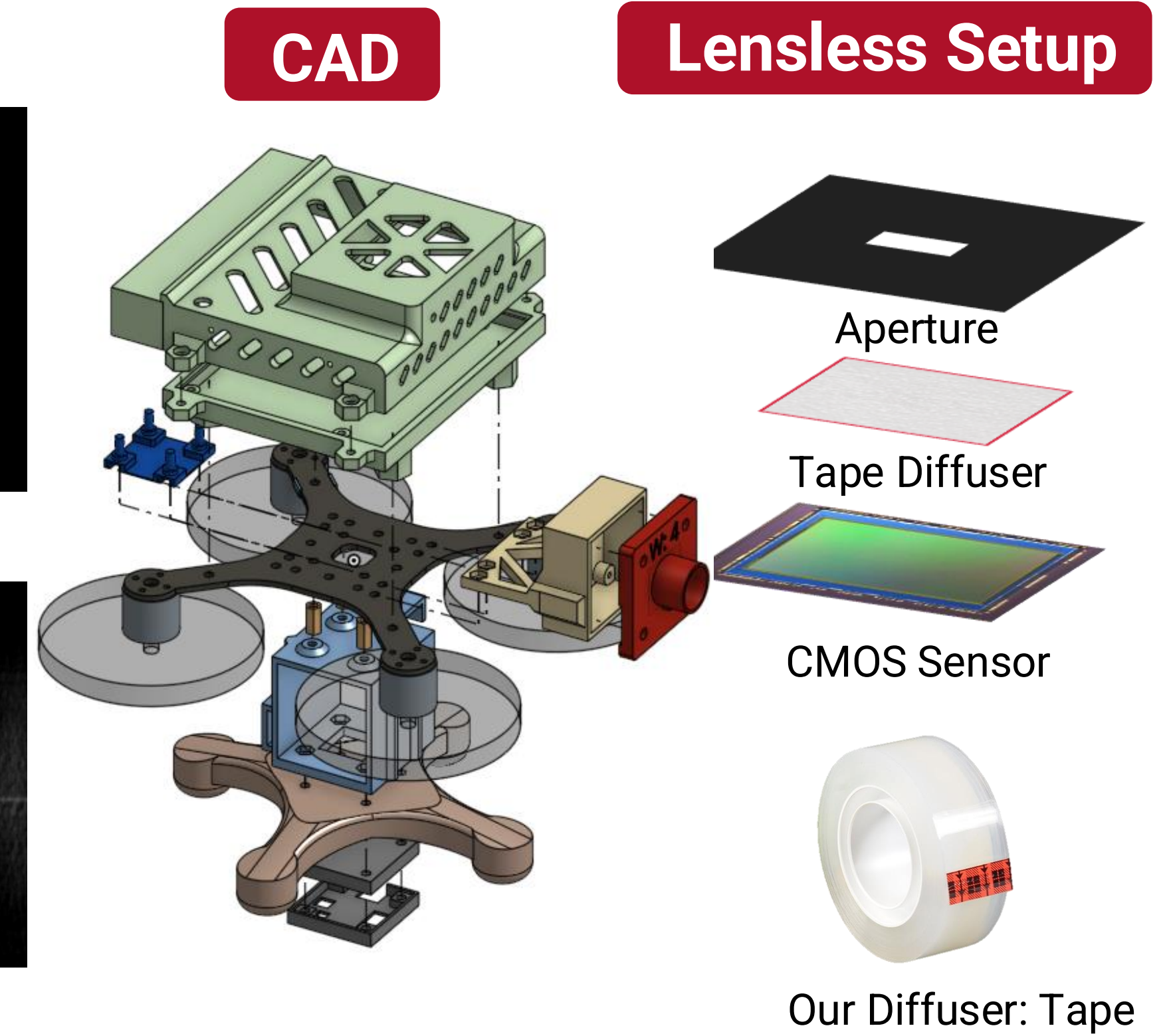
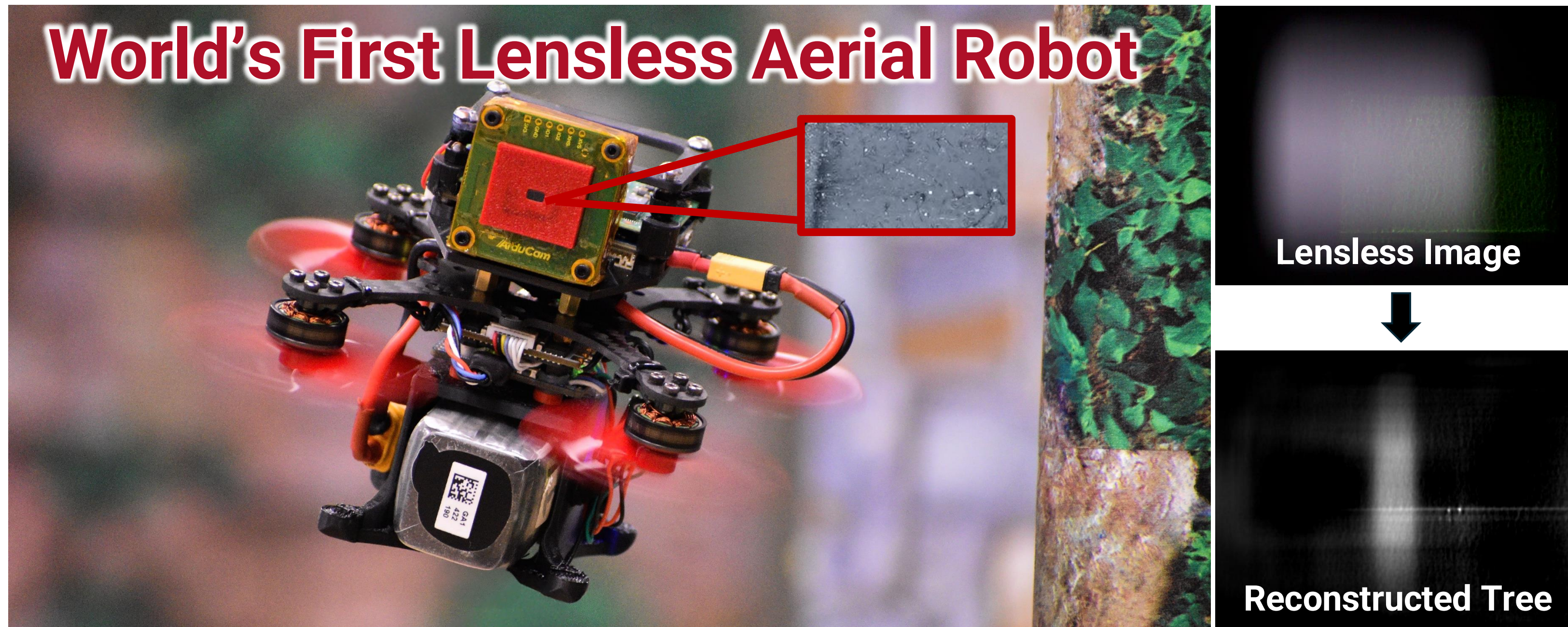
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Motivation

- In search-and-rescue operations, autonomous navigation in the dark remains a challenge
- Traditional vision systems rely on lens-based cameras, which are often heavy and expensive

Contribution

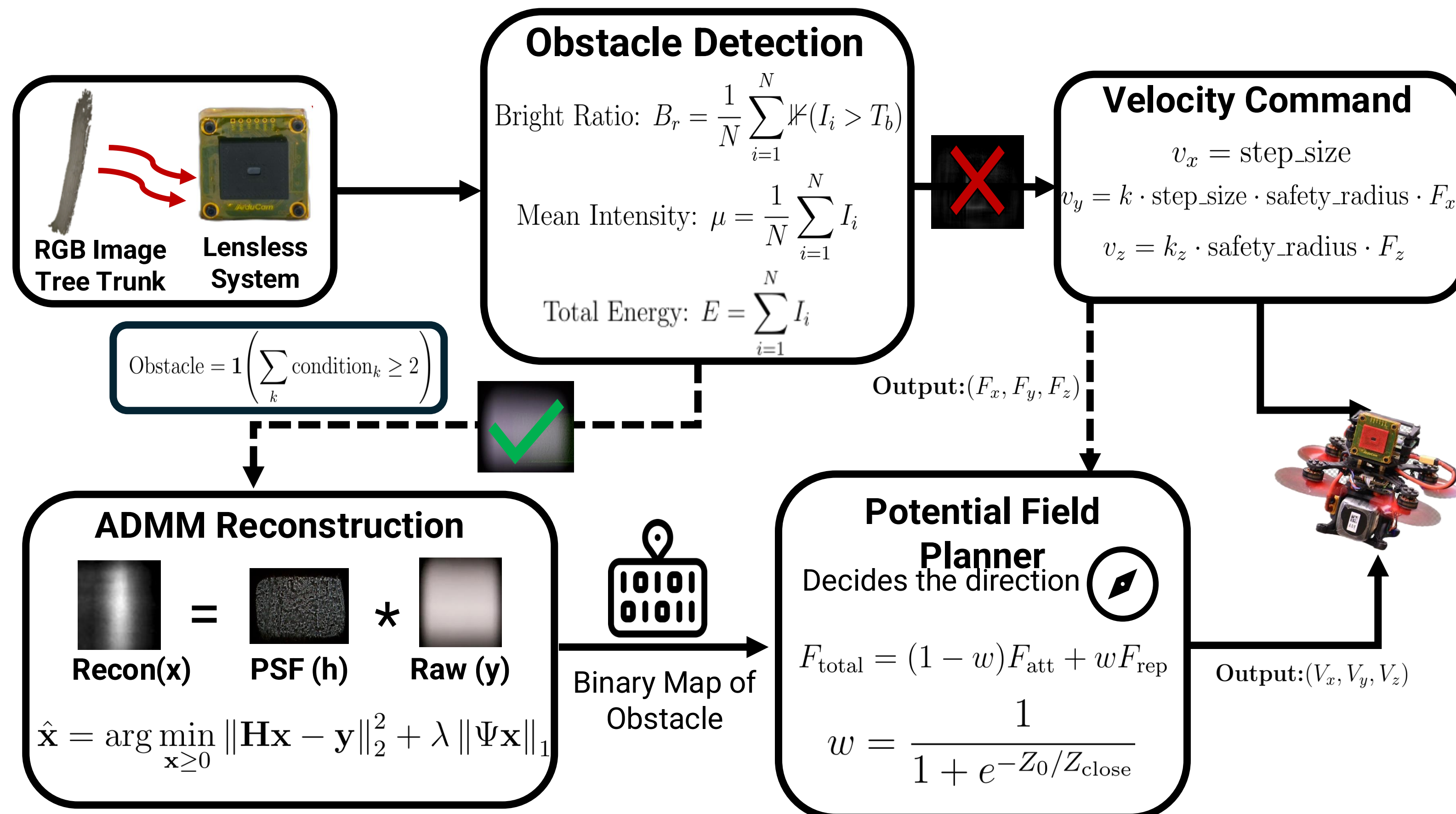
- We present the **world's first lensless navigation system** that replaces a conventional camera lens with an ultralightweight diffuser, a **small piece of tape**
- Enables robust, real-time obstacle avoidance
 - **8x** weight reduction
 - Easy manufacturability and serviceability



Traditional Vision Systems

Our Lensless System

Lens vs. Tape



Results

