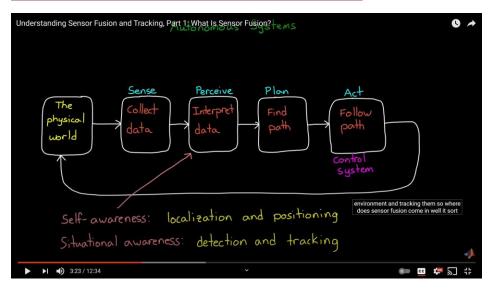
## Sensor Fusion References 3\_2021

## Understanding Sensor Fusion and Tracking, Part 1: What Is Sensor Fusion?

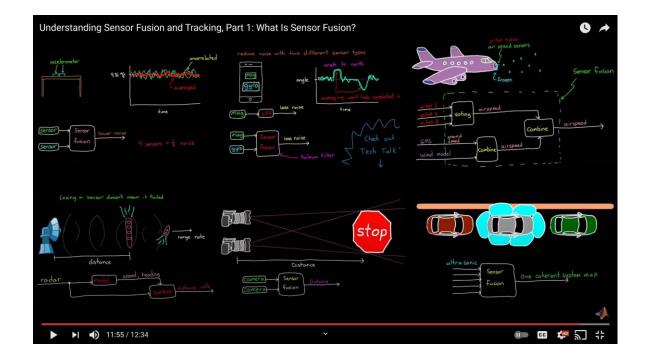
64,254 views •Oct 21, 2019

12:34 A series of videos – MATLAB Tech Talks

https://www.youtube.com/watch?v=6qV3YjFppuc&t=678s



Average values to reduce noise. Combine results for redundancy and reliability.



This video provides an overview of what sensor fusion is and how it helps in the design of autonomous systems. It also covers a few scenarios that illustrate the various ways that sensor fusion can be implemented. Sensor fusion is a critical part of localization and positioning, as well as detection and object tracking. We'll show that sensor fusion is more than just a Kalman filter; it is a whole range of algorithms that can blend data from multiple sources to get a better estimate of the system state. Four of the main benefits of sensor fusion are to improve measurement quality, reliability, and coverage, as well as be able to estimate states that aren't measure directly. The fact that sensor fusion has this broad appeal across completely different types of autonomous systems is what makes it an interesting and rewarding topic to learn.

## MATLAB

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Part 3 - Fusing a GPS and IMU to Estimate Pose: https://youtu.be/hN8dL55rP5I

Part 4 - Tracking a Single Object With an IMM Filter: https://youtu.be/hJG08iWlres

Part 5 - How to Track Multiple Objects at Once: https://youtu.be/IIt1LHIHYc4

## Mitsubishi Electric Research Labs (MERL)

9,706 views •Jun 16, 2016 1454SHARESAVE 3:55 Discusses fusion of camera, stereo, lidar, radar for Self-Driving cars

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