Ricky Houghton

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Hand Controller

- Why does the industry still deploy toy controllers?

- Mil-Spec versions exist
  - Deadman switches
  - Estop
  - Trigger Guards

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UGV needs are different from UAV

- Video quality is critical
    - MPEG solutions are good for UAV, bad for UGV
    - Can't realistically target/shoot with 640x480 MPEG
    - Need infrastructure to support higher resolution
- Low latency is critical
    - Can't realistically shot a moving object with 250+ ms latency
    - Some currently deployed solutions are inadequate
    - MPEG memory require grow exponentially

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Safety at the core

- It all starts with the education
  - Safety is not part of traditional software engineering training
  - Not sure it is part of electrical either
  - We need to fix this
- There are a lot of very bright people in robotics
  - Electrical, mechanical, software engineers
  - They want to solve interesting problems
    - Usually not safety
- Aerospace engineers and transportation engineers know safety, it is a culture thing

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