

# EE 565: Position, Navigation and Timing

## Introduction to Navigation

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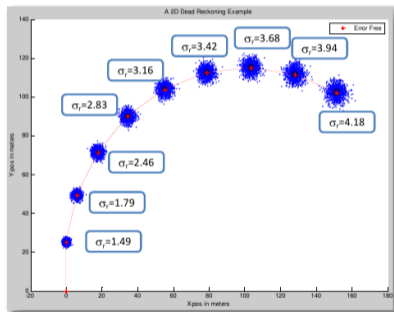
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    - need to initialize and then "integrate" the  $\Delta$ 's
    - Inertial sensors measure the  $\Delta$ 's without requiring an external reference

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DARPA grand challenge



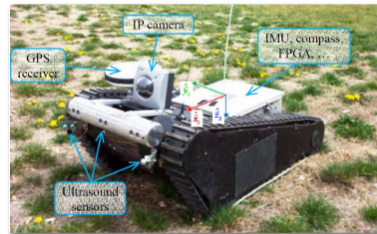


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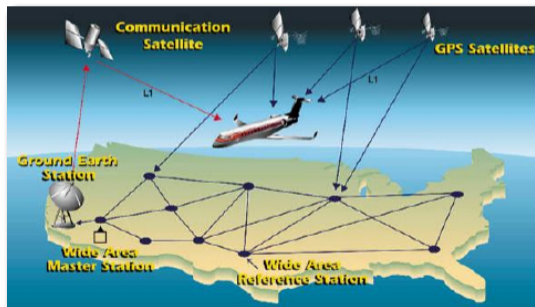
DARPA grand challenge



SOCOM Robot (EE NMT project)



## Earth Centered Earth Fixed Coordinate System



## Earth Centered Inertial Coordinate System



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- 3 When answering the question “where am I?” the *wrt* must be very clearly defined!!
  - Lead in to the notion of coordinate systems

