Summary of this week

- Congratulations for completing the “Linear Kalman Filtering Deep Dive” course!
- This past week, you learned how to apply the linear Kalman filter to a target-tracking application. Specifically, you learned:
  - Some unique features of the target-tracking application.
  - How to track with polar measurements and a Cartesian state.
  - The interacting-multiple-model Kalman filter and how to implement it in Octave.
  - Steady-state α-β-γ target-tracking filters.

Where to from here?

- You are now ready to take the next step and learn how to apply Kalman-filtering concepts to more challenging systems!
- So, course 3 “Nonlinear Kalman Filters” introduces:
  - The extended Kalman filter (EKF).
  - The sigma-point Kalman filter (SPKF).
    - Also, two popular variants of the SPFK known as the unscented Kalman filter (UKF) and cubature Kalman filter (CKF).
  - Some extensions and refinements to nonlinear filters.
  - Application of nonlinear Kalman filters to estimating model parameter values.

Credits

Credits for photos in this lesson

- “Compass” on slide 2: Pixabay license (`https://pixabay.com/en/service/license/`), cropped from `https://pixabay.com/en/compass-navigation-map-direction-390054/`