Extended Kalman Filter

Compiling

Once the install for uWebSocketIO is complete, the main program can be built and run by doing the following from the project top directory.

1. mkdir build
2. cd build
3. cmake ..
4. make
5. ./ExtendedKF

Accuracy

There are results screens which show that RMSE values are below thresholds [.11, .11, 0.52, 0.52].

Follows the correct algorithm

I completed todos in such files:

- kalman_filter.cpp
- tools.cpp
- FusionEKF.cpp

Tips & Tricks

I avoided division by zero during coordinates transition. You could find this code in kalman_filter.cpp file on 44 and 47 lines.

Both Update and UpdateEKF methods have common part which was excluded in the update method.

I added angles normalization to UpdateEKF method (52 - 58 lines).

Results