Fusing GPS and Stereo Data
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• Goals
  - Receive GPS and stereo data
  - Send GPS data to map
  - Convert GPS data to metric coordinate system
  - Ego-motion estimation from stereo data (reimplementation with faster openCV methods)
  - Fuse data in the metric coordinate system
  - Convert to Latitude / Longitude and sent to map
  - Overlay openstreetmap with the three positions
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• Goals
  – Receive GPS and stereo data
  – Send GPS data to map
  – Convert GPS data to metric coordinate system
  – Motion estimation from stereo data
    • 3D Points of the keypoints are calculated and matched
    • 3D Pose not working
  – Fuse data in the metric coordinate system
    • Extended Kalman Filter not implemented
  – Convert to Latitude / Longitude and sent to map
  – Overlay openstreetmap with the three positions
Fusing GPS and Stereo Data

• Issues:
  – Problems with Quadrocopters GPS receiver
    => no bag files available until last wednesday
  – Stereo data not the best, because the quadrocopter was only carried around not flying
  – Bad communication / time management in team