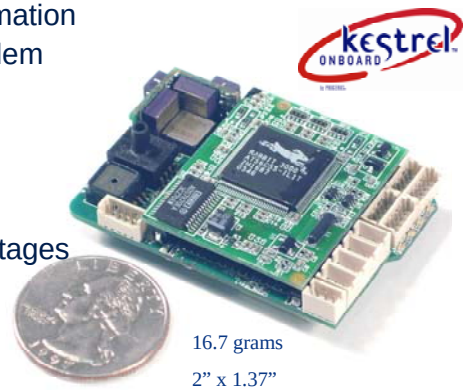
Kestrel Autopilot

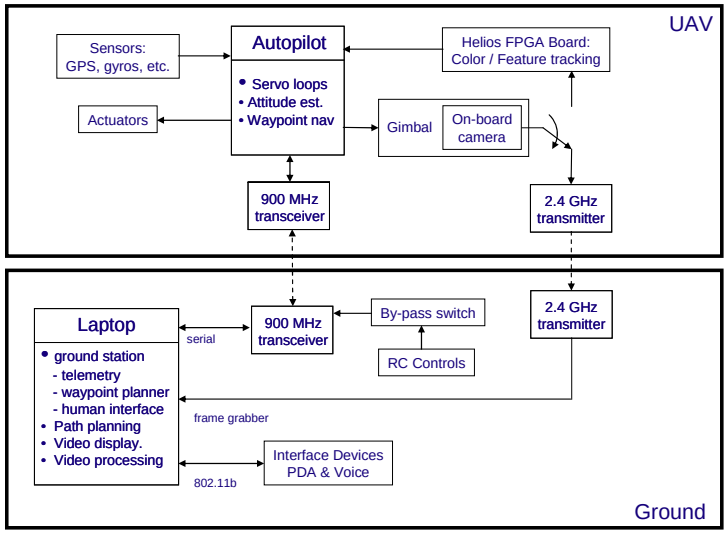
The Kestrel autopilot began in 2001 as a mobile robot control board for a robot soccer senior design project. The board was adapted for flight control in 2002 and successfully flew its first small UAV in 2003. In 2004 the technology was licensed to Procerus Technologies, a new start-up, which has been successfully commercialized the product and now employs ten engineers.

To our knowledge, the Kestrel autopilot is the smallest available fully functional autopilot in the world.

- 3-Axis Angular Rate & Acceleration Measurement
- 20 Point Sensor Temperature Compensation
- Kalman Filter Attitude Estimation
- Optional "piggy-back" Modem
- Configurable Failsafes
- 2-Axis Magnetometer
- 2-Axis Gimbal Support
- Dead reckoning filter gracefully handles GPS outages
- Multiple-UAVs
- Smart Loiters
- Auto-Trim



Flowchart



Technology Transition