

# MAV07 Outdoor Competition

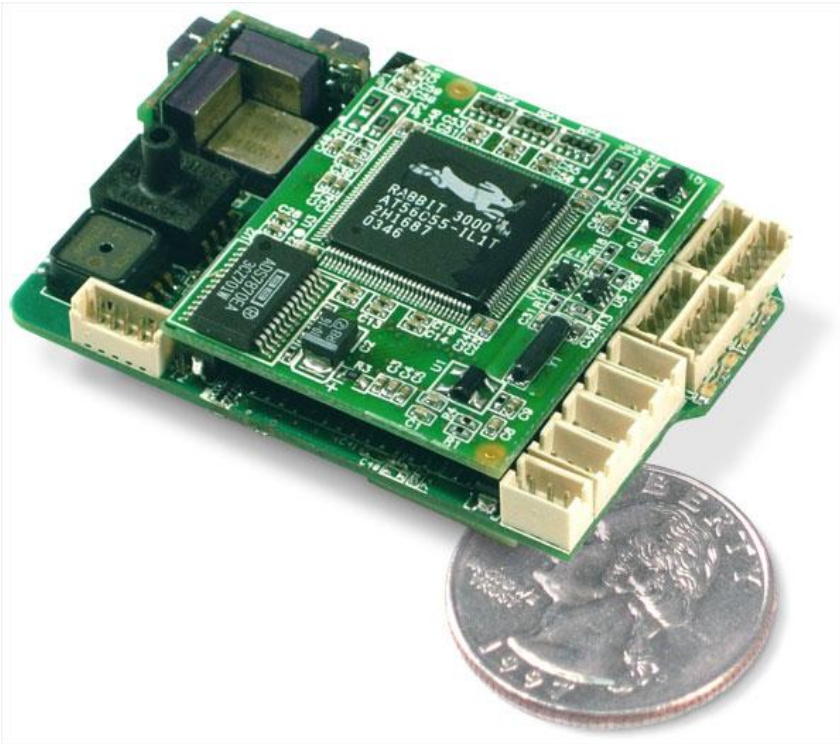
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# Air Frame

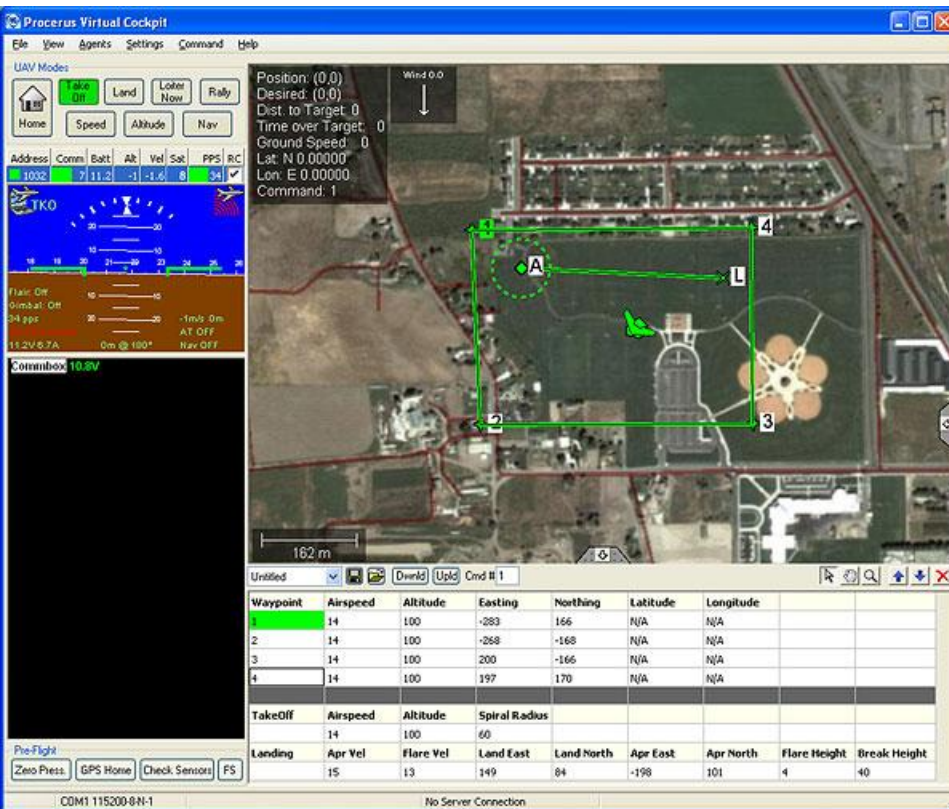
- Survivable
- 2 cameras
- Stable
- Low airspeed





- Kestrel
  - 3 axis gyros
  - 3 axis accelerometers
  - 1 differential pressure sensor
  - 1 absolute pressure sensor

# User Interface



- Procerus autopilot
- Virtual Cockpit
- Custom MFC Interface
- 4 modes
  - Geo-location
  - Identification
  - Bombing
  - Urban Canyon

Independent of flight control

# Modes of Operation

- Geo-location
  - Rotation used to relate pixel to real world coordinate frame
  - 5 meter accuracy
- Identification
  - Saved image
    - De-interlace
    - Color enhanced
- Bombing
  - GPS location based
  - Vision based
- Urban canyon
  - Arch finder – feature based
  - Flight by vision – based on the body frame



Original Image

Color Enhanced Image



Original Image

De-interlaced image

