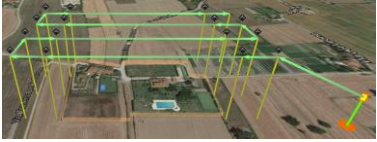





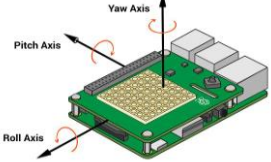


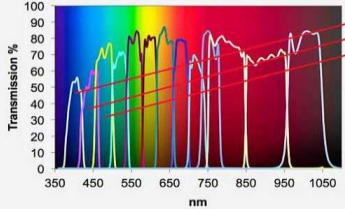



## Flight and Camera Control - Components

1	<b>Flight Planning</b>	<p>Flight line generation software for PC                  Calculates start, end, lead in, lead out coordinates                  Uses polygons or lines from Google Earth                  QGIS optional for further manipulation                  Exports lines &amp; routing for Pilot Guidance Unit</p>		
2	<b>Pilot Guidance Unit</b>	<p>Based on SkyDemon                  Import of flight lines from planning                  Control of aircraft on flight lines                  Display of ATC &amp; airspace restrictions                  Software &amp; data license for 1 year                  10" Tablet with good display (eg S3/S4)                  RAM yoke or suction cup tablet mount</p>		
3	<b>Camera Pod</b>	<p>For Cessna 172, 182, 206 and similar models                  For SLR and medium format cameras                  One or two cameras or other sensors                  Vertical or oblique imaging                  Central instrument/battery compartment                  Two mounting plates for cameras                  Payload 10 kg Diameter 230 mm, length 760 mm                  Delivered empty and with no pre-cut holes                  STC by Transport Canada and the FAA                  Aluminium transport case included</p>		
4	<b>Camera Control System</b>	<p><b>Cabin Unit</b>                  Runs on an Android device (included)                  Mounting hardware included                  Bluetooth communication to pod unit                  Trigger cameras by time, speed or distance                  Confirmation of image acquired                  Store flight log and image position data                  Fix accuracy typically 2-3 meters</p> <p><b>Pod Unit</b>                  Trigger hardware (included)                  Bluetooth connection to cabin unit                  Trigger connections for two cameras                  Event cable for one camera                  Rechargeable internal battery</p>	 	
5	<b>GNSS Upgrade to Camera Control System</b>	<p>GNSS dual frequency receiver                  Positioned on front or rear window                  GPS, BeiDou, GLONASS, Galileo, SBAS                  On board data storage via SD card                  Bluetooth event from camera control system                  GNSS antenna with RAM suction mount                  Rechargeable internal battery                  Fix accuracy typically sub meter</p>		
6	<b>IMU upgrade to GNSS</b>	<p>Determines aircraft attitude                  Sub 1° in all axes                  Enhances fix accuracy                  On board data storage via SD card                  Rechargeable internal battery                  Software to integrate data with GNSS                  Fix accuracy typically sub decimeter</p>		

## Flight and Camera Control - Components

7	<b>Medium Resolution Camera</b>	<p>Single Nikon D850 camera                      45.7 Megapixels (8256*5504).                      820m coverage @ 10cm GSD                      Sustainable cycle time &lt; 2secs                      Battery life &gt; 2000 frames                      2 x High speed 128gb SD cards                      Zeiss Interlock f1.4 25mm lens                      Quick release mounting clamp                      Single front fairing hole to suit</p>		
8	<b>High Resolution Camera Pair</b>	<p>2 x Nikon D850 cameras                      Splayed configuration with 15% overlap                      Effective footprint 14035 x 5504.                      1250m coverage @ 10cm GSD                      4 x High speed 128gb SD cards                      2 x Zeiss Interlock f2.0 50mm lens                      Quick release mounting clamps                      Holes in front &amp; rear fairings to suit</p>		
9	<b>Multi Spectral Camera</b>	<p>Infra Red sensitive Nikon D850 camera                      Normally flown with RGB front camera                      1 x bandpass filter 100nm wide 940nm centre                      1 x cutoff filter allows 720nm and up                      Many other filters optionally available                      2 x High speed 128gb SD cards                      Zeiss Interlock f1.4 25mm lens                      Quick release mounting clamp                      Single rear fairing hole to suit</p>		
10	<b>Thermal Camera</b>	<p>FLIR Vue Pro R (640x512)                      13mm lens giving 45deg FOV                      Sensitivity typically 0.03deg                      Works also with any other camera (7, 8 or 9)                      Integrates with camera control system (4)                      Post processing software</p>		
	<b>Notes</b>	<p>Users are welcome to discuss options for other cameras, different lenses, etc .</p>		