



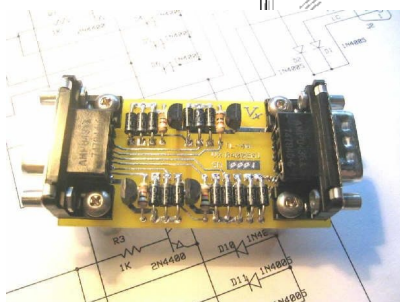
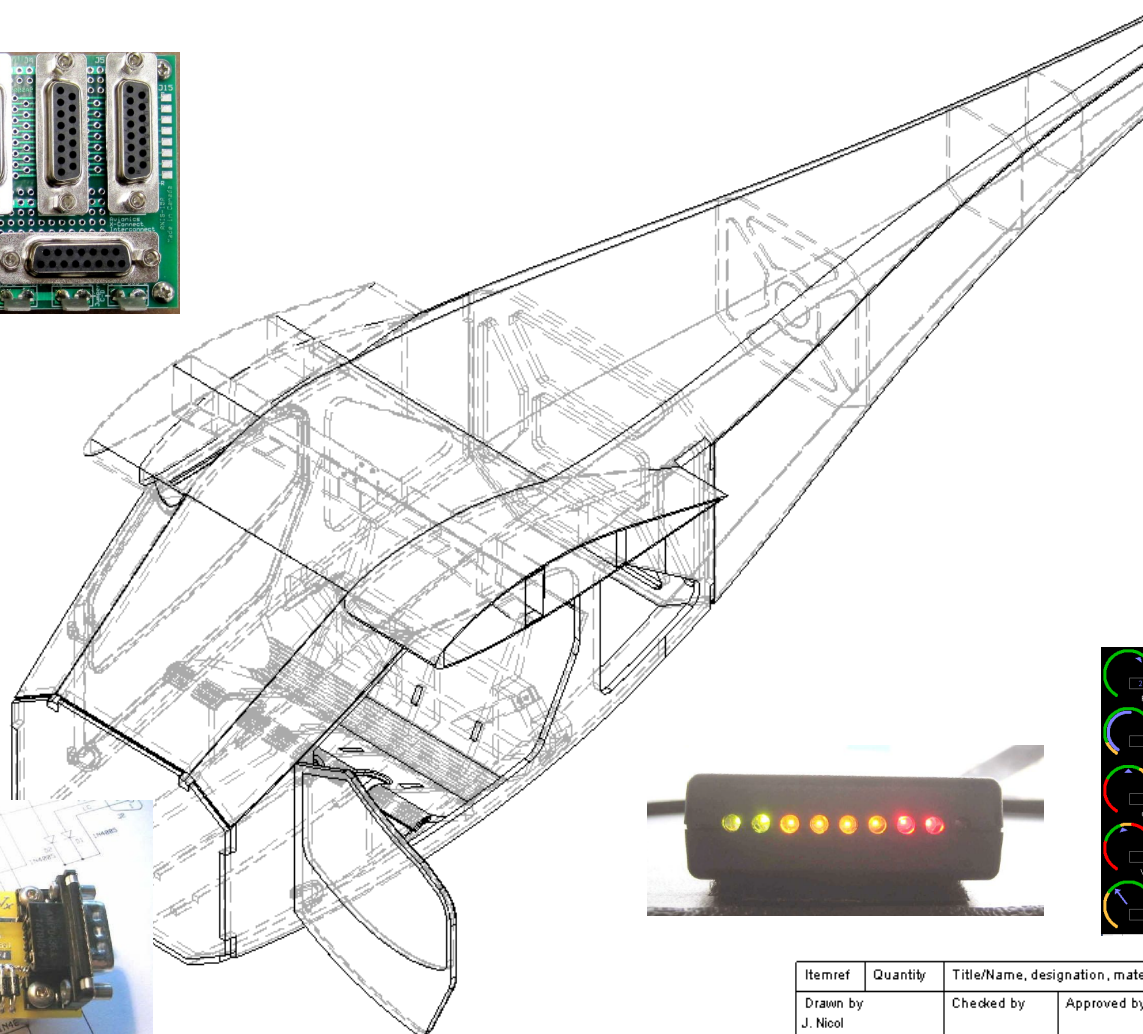
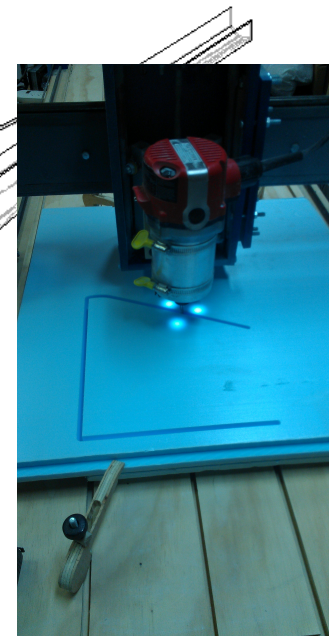
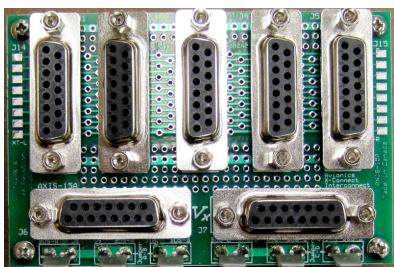
Open Source Hardware Summit

New York City, 27 September 2012

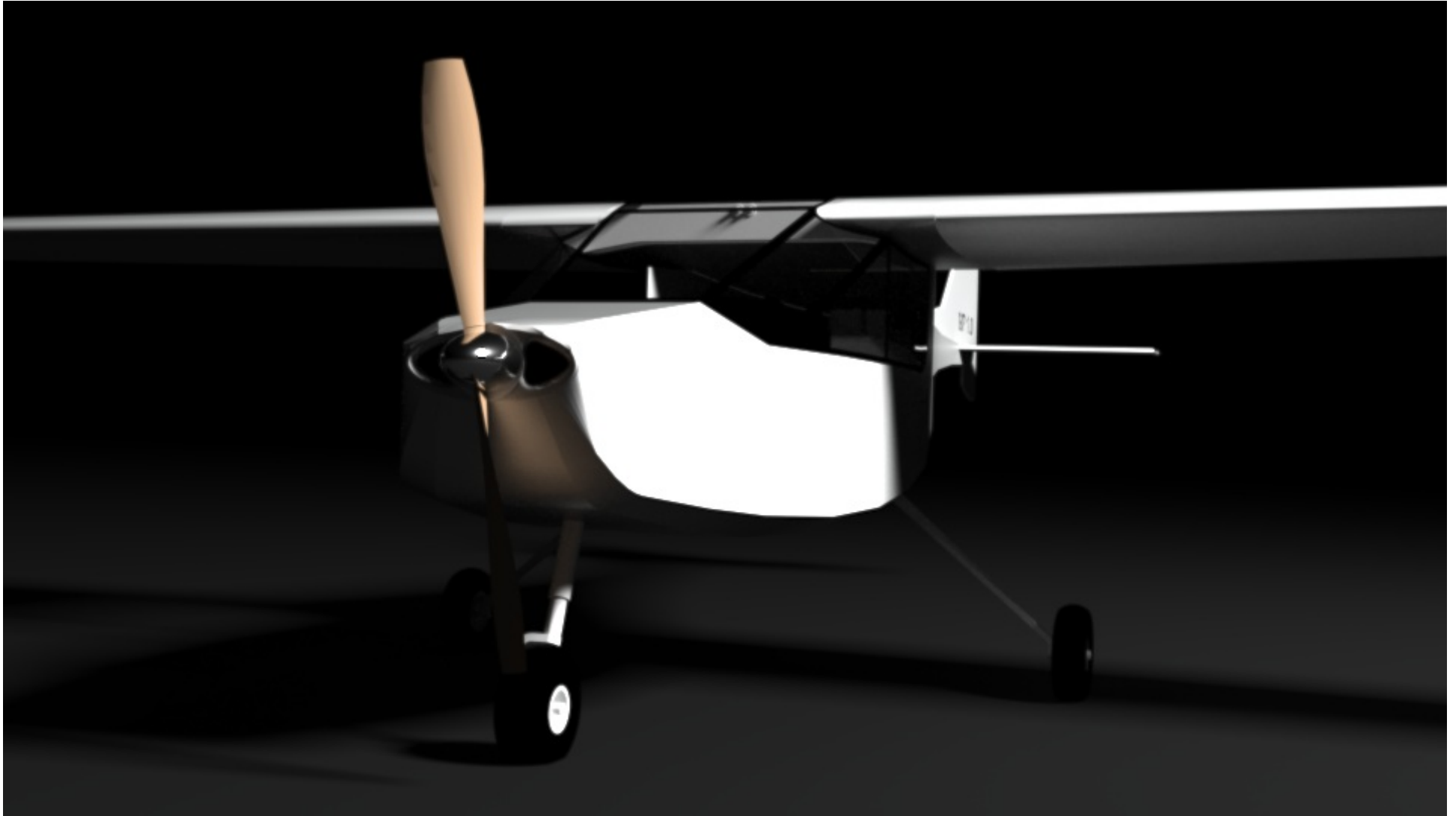
John Nicol

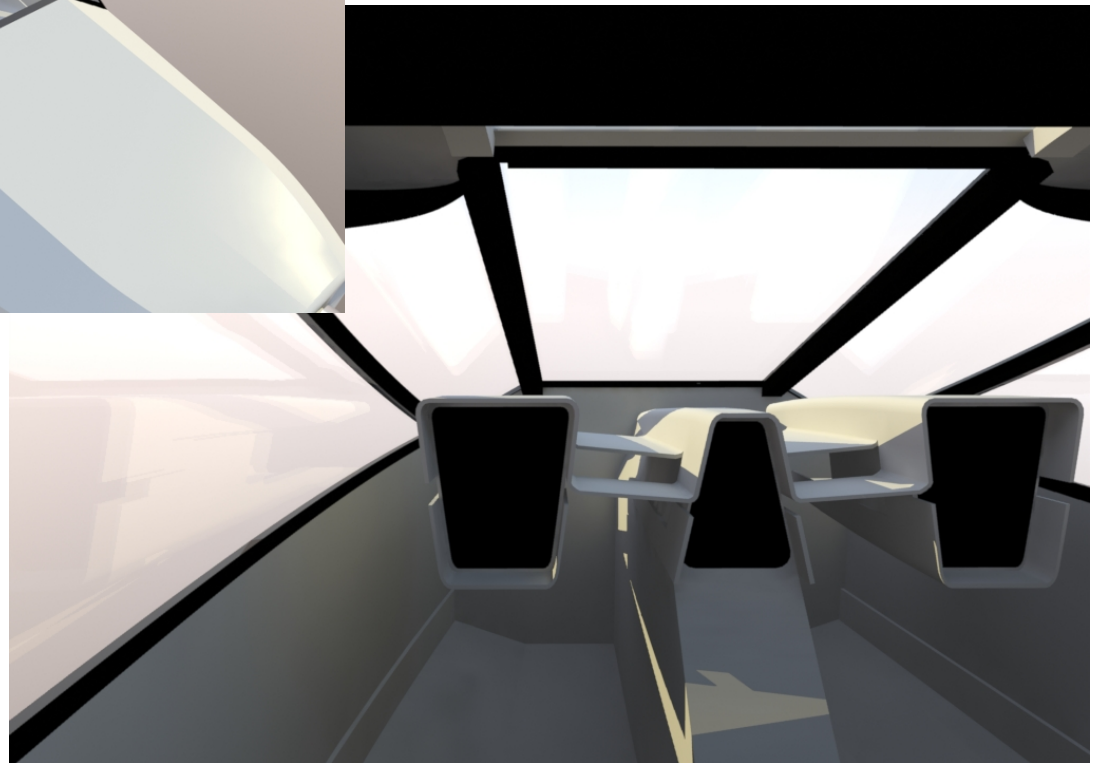
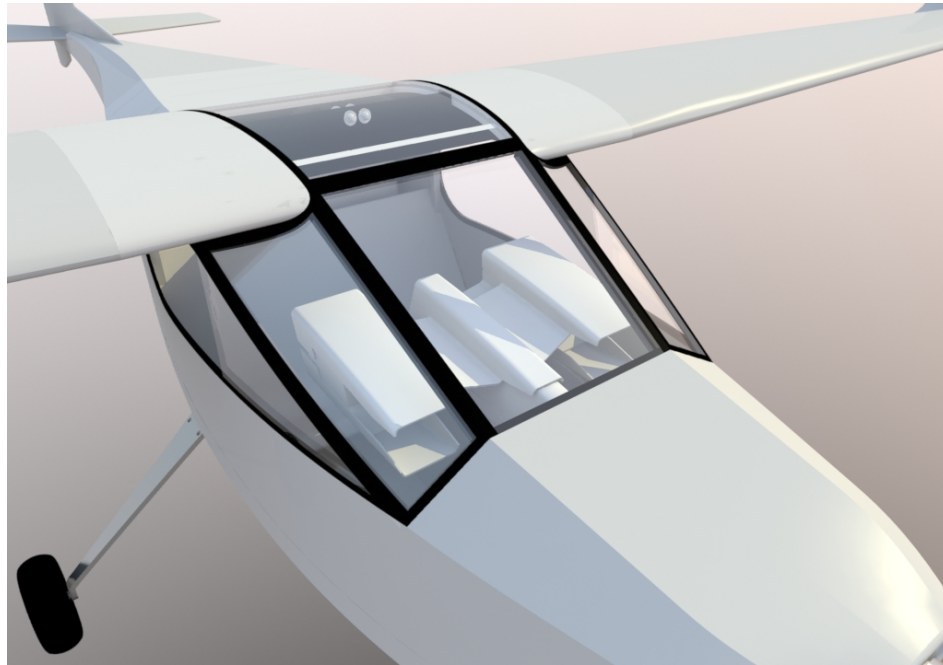


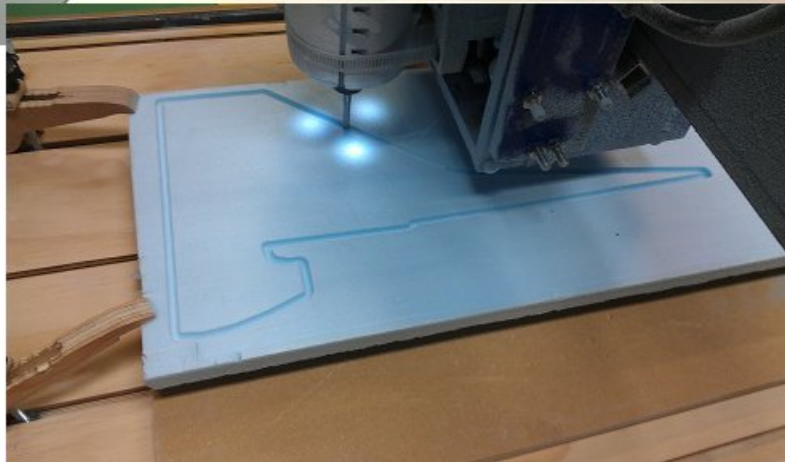
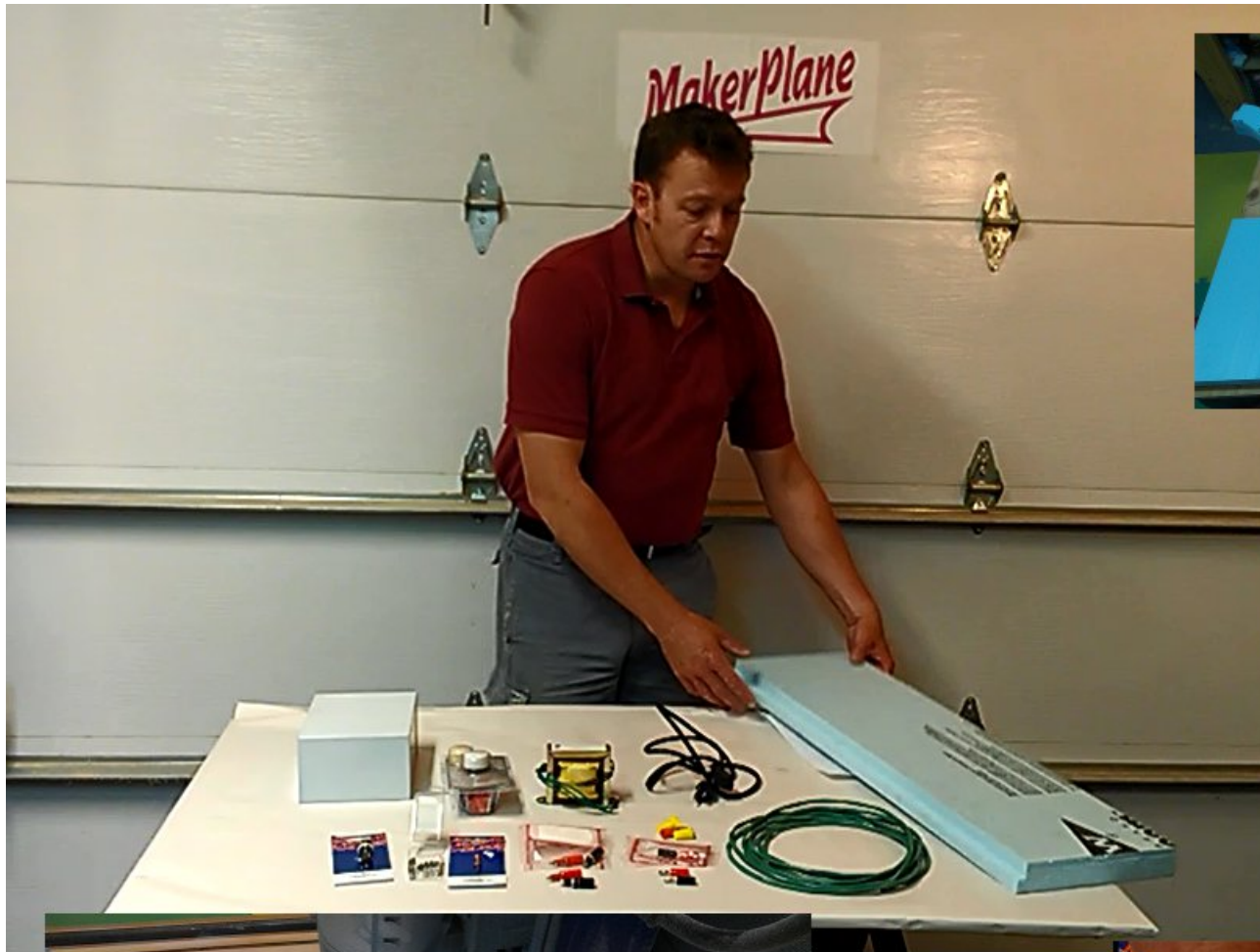
What is MakerPlane?



Itemref	Quantity	Title/Name, designation, material, dimension etc			Article No./Reference	
Drawn by J. Nicol		Checked by	Approved by - date	File name	Date 12-09-12	Scale
			0126			Edition







Problem

- **62%** of homebuilt aircraft kits and plans are **abandoned** before finishing



Project For Sale



60% complete project for sale. No time to finish. Contact [xxxxxxxxxx](#)

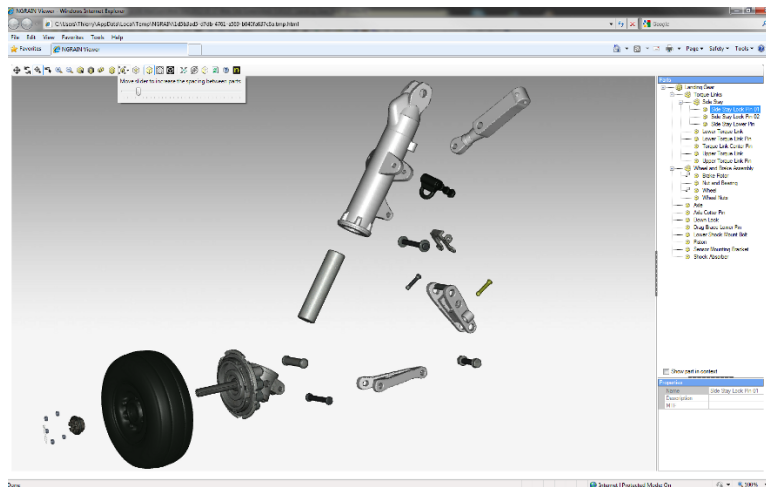
Solution

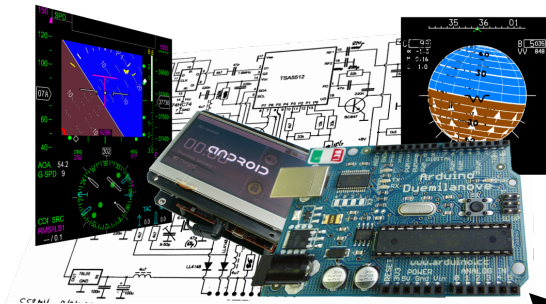
- Create plans, methodologies to build using personal home-based digital manufacturing equipment.
- A collaborative online environment

Traditional Way: 3 hours per rib

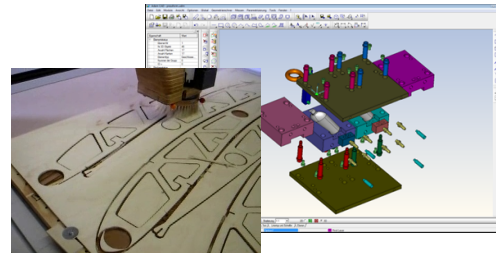


CNC: 3 minutes per rib





Avionics/Electronics Kits



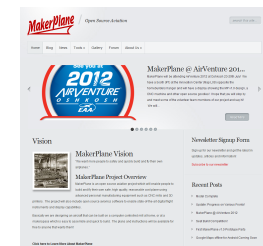
CAD/CAM Outsourcing



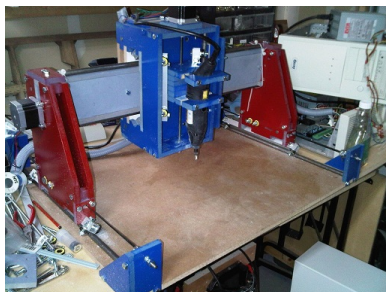
SLSA



Kits/Partial Kits



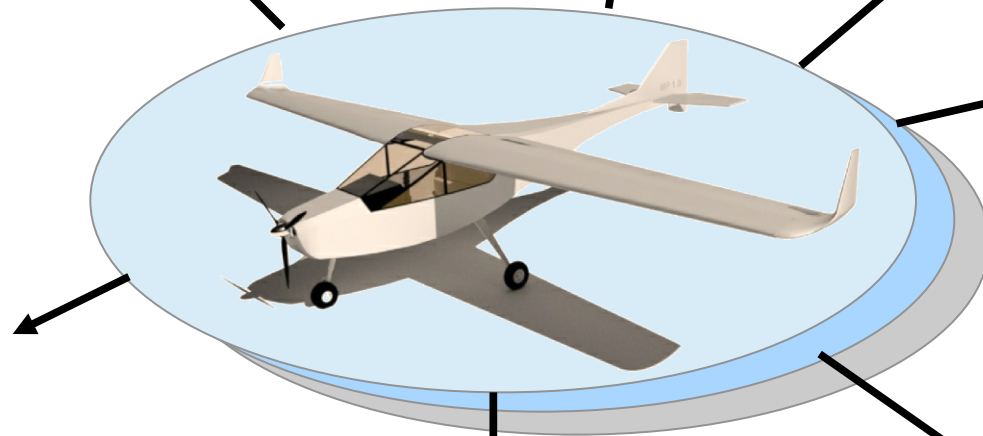
Online Community



Personal Manufacturing Equipment



Mobile Shop

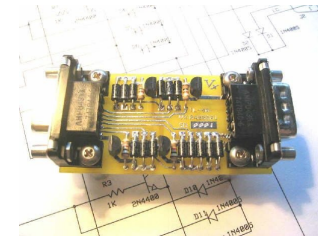


Team



Progress and Milestones

- Now: Avionics available
- Oct 12: Kickstarter Campaign
- 2013: MP v1.0 Prototype
- 2014: MP v1.0 Flying



KICKSTARTER



Issues

- ☒ Perception and education
- ☒ Safety
- ☒ Liability
- ☒ Certification Standards
- ☒ Licensing

Perception & Education

- ☒ Experimental aircraft past-time
- ☒ 3D printing
- ☒ Makerspaces and capabilities



Safety

- ☒ FAA Rules
- ☒ Licensing and Training
- ☒ Built-in systems



Liability

- ❑ Waivers
- ❑ Supply kits only
- ❑ Builder is manufacturer



Certification Standards

- ☒ Design and build to recognized standards
 - ☒ FAA
 - ☒ ASTM



Licensing

- ❑ Four OSH licenses listed on our website
- ❑ TAPR NCL is our current option



MakerPlane

Open Source Aviation

www.makerplane.org

