



CONNECTICUT CORSAIR

Connecticut Space Grant Consortium & Connecticut Corsair 2014 Internship

F4U Corsair Flight Simulator Project

Connecticut Corsair is restoring to operation an aircraft flight simulator, based on the Chance Vought F4U Corsair. This simulator was professionally designed and built by one of the world's leading flight simulation and aerospace companies, Environmental Tectonics Corporation, (ETC). ETC built Mission:SPACE, a popular attraction at Disney World. In addition, ETC builds flight simulators and high-g centrifuges for both US and foreign customers, and is currently building a state of the art research facility for the US Air Force at Wright-Patterson AFB, Dayton, Ohio. The company is also conducting space flight training for commercial space programs.

The internship can be for a Mechanical Engineering, Electrical Engineering or Computer Science Engineering position. For the Design Engineer position, the student will work on the modeling and reverse engineering of detailed components and assemblies for the restoration of the WWII F4U Corsair aircraft and construction of the Corsair simulator. Utilizing original drawings, manuals, photos, and physical parts, this individual will be responsible for developing solid models and drawings of the components for subsequent manufacture. Experience in CAD is required, with SolidWorks experience and blueprint reading preferred. SolidWorks software and training may be provided by us on a case by case and space available basis. This individual must be able to work independently, under the guidance of the project leader, to complete the assigned tasks and to deliver completed models, drawings, and supporting documentation for the manufacture of parts. For the Electrical Engineering position, the student will continue the work of upgrading the systems to current technology. For the Computer Science Engineering position, the student will work with the Lockheed Martin Prepar3D software, adapting it to operate the simulator with both visual presentations and motion. Due to the nature of these positions, the student will have as an option the opportunity to work "online" from their school location, and not have to travel daily to our facility. Meetings on a regular basis will take place at locations convenient to all collaborating parties, negating the need for a daily commute. This project is managed through CT iHub, a project management website, allowing for easy collaboration and sharing of data with all parties, (www.ctihub.com).

For more information on the internship, please see the **Connecticut Space Grant Consortium Fall 2012 Newsletter** to read the article describing our goals, expectations and the benefits available to interns by working with Connecticut Corsair. Interns are expected to adhere to common business ethics, including the protection of Intellectual Property, (IP), by signing an industry standard Non-Disclosure Agreement, (NDA).

This project is sponsored by Connecticut Corsair and other Connecticut-based aerospace and advanced-technology companies, affording local networking opportunities for team members, and will also involve collaboration with other universities such as Trinity College, UConn and Universidade Federal de Minas Gerais in Brazil.

The simulator is a full motion, three axis simulator, with “heave” to simulate acceleration and deceleration. The simulator will be re-designed and re-built in several phases, incorporating the latest in modern technology:

Phase One: Replace the operating system with modern software and hardware, and restore the mechanical operation of the simulator.

Phase Two: Re-program the simulator to fly with the characteristics, sounds, performance and feel of the F4U Corsair.

Phase Three: Replace the current cockpit enclosure with an exact copy, full scale replica of the F4U cockpit, utilizing state of the art rapid prototyping of tooling and parts.

Phase Four: Install a Virtual Reality wrap-around, “through the window” vision system, including bio-medical sensors and a digital audio and visual recording system.



For more information, please visit our sponsors and supporters:

www.connecticutcorsair.com
www.ibagna.com
www.stratasys.com
www.bolton-works.com
www.reno-machine.com
www.whelen.com
www.infotech-enterprises.com

www.capinc.com
www.etcusa.com
www.servotechusa.com
www.Prepar3D.com
www.us.trumpf.com
www.ctinnovations.com
www.ctihub.com

Contact:

Craig McBurney
Connecticut Corsair
P.O. Box 569
Chester, Ct 06412

craig@connecticutcorsair.com