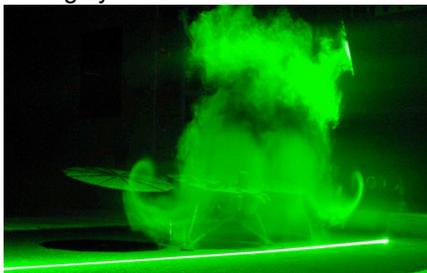


Wind Tunnel and Laboratory Facility

The ViGYAN Wind Tunnel supports R&D and business activities of ViGYAN, Inc. in Hampton, Virginia. We provide aerospace research and development services to the NASA Langley Research Center (LaRC) as well as other aeronautics R&D; wind energy R&D; scientific, engineering, and business software development; engineering program management, planning, scheduling, and cost estimation; and computer technology support. ViGYAN also proactively supports educational programs at NASA Langley and in our community; we were part of the team that designed, assembled, and maintains the Newport News Aviation Academy Wind Tunnel. ViGYAN is a minority-owned small business and was the NASA LaRC 2010 Subcontractor of the Year. Our customers include other NASA centers and Federal civilian agencies, DoD, and corporate clients. ViGYAN is ISO 9001:2015 certified.

The wind tunnel facility supports subsonic testing activities as well as test technique development projects for NASA and commercial clients. Typical tests include aircraft models/drones, solar panels, fencing, golf clubs, buildings, and other flying concepts. Recent specific tests include the development of a wind tunnel balance vibration reduction system under an Air Force SBIR, an advanced Digital Bridge hot wire anemometry system, and support for the NASA 2016 Mars InSight lander. The facility has also been recently used for a series of high school/college teaching programs sponsored by NASA Langley Research Center. In addition to

the wind tunnel itself, the laboratory also provides services and facilities for the following areas:



Electronics

design and fabrication:

ViGYAN's staff can design and build various electronic systems and develop PCB layouts. Components and systems include (but not limited to) data acquisition/recording, control systems, and sensor systems. The staff has both J-STD and ITC-620 soldering/assembly certifications (including for space environments). Software and firmware development, including

PLCs and LabVIEW, is available.

Propeller and motor testing

The propeller and motor test cell provides static testing of small to medium sized propeller and motor systems for wind tunnel and UAS applications. A full range of instrumentation, camera system and control systems allow for safe testing in an enclosed environment. It includes the lab, control room, and assembly area inside the main building.



Machine shop / fabrication work

We can provide minor machine work and fabrication of various models, mechanical pieces, and modify/adjust existing parts/pieces for our customers. Many wind tunnel models and components can be designed and fabricated via the in-house 3-D printer.

Mechanical design, solid modeling, and simulation

ViGYAN has a team of engineers and analysts for mechanical design to customers using SolidWorks, including structural load analyses. Most 3D model files types can be imported/exported. Our staff aerodynamicists can also provide computational fluid dynamics (CFD) grids and solutions for customer vehicles and structures.

Access to the Wind Tunnel and Laboratory Facility:

Customers can access the facility through company purchase orders, Government purchase/credit cards, the NASA Langley TEAMS3 contract, or via our GSA MAS contract (47QRAA21D0023). We welcome facility visits from interested parties. To set up a tour or for scheduling, test estimates, or to obtain further information, please contact:

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