



## **Emergent Space Technologies, Inc.**

Position: GNC Engineer

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The candidate will work as part of the Guidance, Navigation and Control team in the satellite servicing capabilities office at NASA GSFC providing support to the Argon test campaign and the Restor mission. Argon is a series of ground tests utilizing robotic motion platforms to evaluate Autonomous Rendezvous and Docking sensors (visual/IR/LIDAR), avionics and software. Argon is the precursor to Restor - a future NASA mission to refuel and repair geosynchronous satellites.

The candidate may be required to perform the following tasks:

- Write C-code modules for NASA's Freespace simulation environment and help develop the hi-fidelity simulation for Restor.
- Assist in GNC-related satellite design trade studies in support of Restor requirements definition.
- Assist in testing and development of the pose estimation algorithms.
- Assist in improvements to Freespace
- Assist in supporting Goddard's robotic manipulator team

Candidate must be highly efficient, be able to work in a team, and be a fast learner. Candidate must have a strong background in C or C++ and a solid understanding of dynamics and kinematics, coordinate frames/transforms. Additional desirable skills (in order of preference): rigid body dynamics, basic orbital mechanics, GUI development experience, linear controls and stability analysis, machine vision algorithm development, Kalman filtering, and robotic manipulators. Masters degree or higher preferred or Bachelors degree with significant on-the-job experience.