

TURBOJET ENGINE TEST STAND

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Turbojet engines are widely used as teaching tools in engineering education. The Cooper Union Automotive Lab possesses a small turbojet engine for experimentation purposes. A test stand is necessary to conduct experiments with this engine. Commercial test stands are very costly. A low-cost custom test stand was designed and built to provide a platform for turbojet experimentation. First, a baseline test stand was constructed to get the engine up and running. After a few successful test runs, the test stand was modified to incorporate a load cell for measuring thrust. Preliminary data was collected, proving the functionality of the system. Future work will bring even greater capability to the test stand, making it more suitable for research and testing that will supplement the Cooper Union mechanical engineering curriculum.