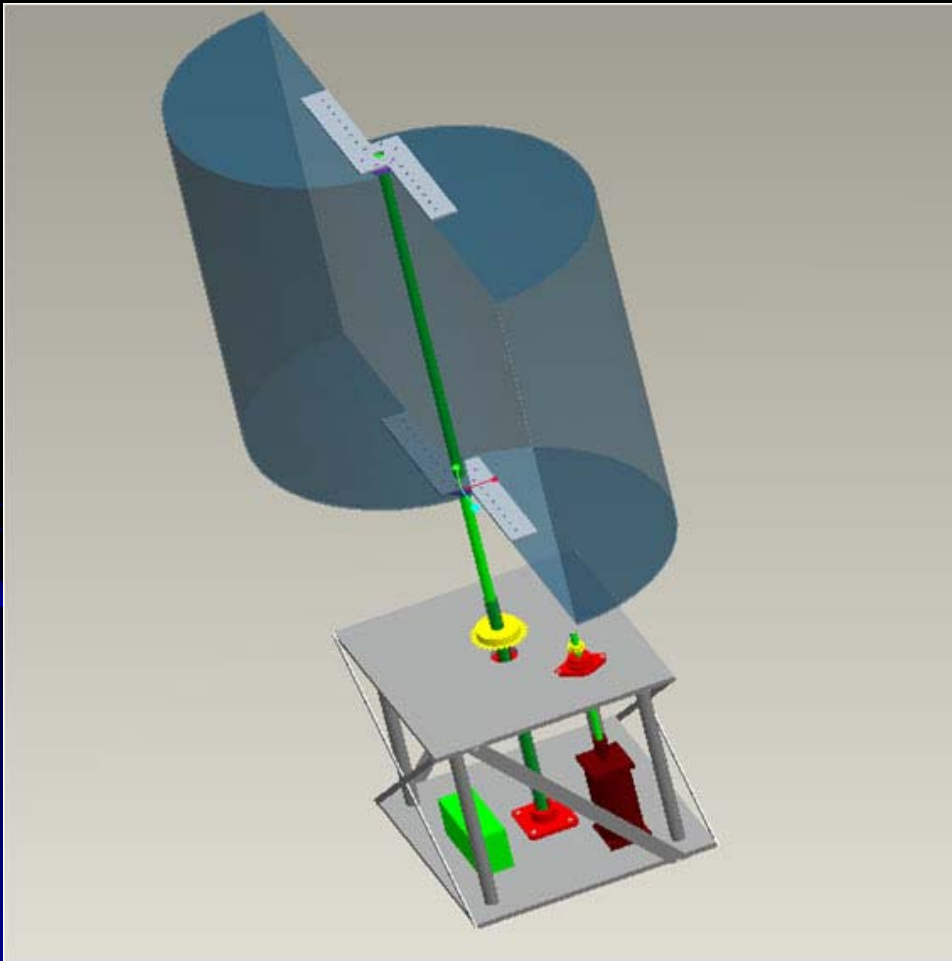


Pinwheel Technologies

Project Nugget



This project aimed to design a portable wind turbine capable of generating 20 watts at 12 volts in a nominally 15 mph wind. The design is a vertical axis wind turbine with two half-cylinder blades and an interchangeable shaft to allow for a hand crank. The drive shaft powers a generator which stores electrical energy by charging a battery while a microcontroller monitors an ammeter to control rpms. The product can power a communication device in remote areas or in power-loss emergencies. Prototype performance isolated areas for improvement in further development and suggested a feasible product.