DERVISH

To optimize performance and ease of prototyping and manufacture, Derwish's turbines are made from water-jet cut T6061 aluminum, a recyclable material with high strength to weight ratio.

To reduce waste, cost and energy consumption in production, components are designed to nest efficiently on standard sheets of 1/16" aluminum prior to being formed into complex contours with a hydraulic press. The DIY press could be made using 5 axis, CNC cut molds, and standard automotive jacks.

Each of the turbine's concave, helical blades is riveted to two individual end plates, allowing for easy transport, site assembly, repair and modification. Alternately, the turbine blades could be made from carbon-reinforced biorens.