



CACTi is a system of renewable energy infrastructural art encompassing algaculture - a form of aquaculture involving the farming of species of algae - and monumentality of classical order structure to create a unique atmosphere in harmony with barren landscape of the Fly Ranch project geography.

CACTi consists of vertically tiered modules that can be stacked on top of each other to expand. Within the individual module system, solar panel system and a ring of LED light are installed to operate algae mixing circulation of a closed loop system and injection of CO₂ and nutrients such as nitrogen, phosphorus, and potassium which serve as fertilizer for algae. Residual solar energy stored during the day will be saved in a battery to be used as an energy source of lighting up LEDs at night, which can be used as a streetlamp and wayfinding mechanism. At night, a spectacle of illumination enhances the dynamics of the column landscape with lights. The density of columns creates a pleasant environment further enhanced by green shade from algae tubes, through which the installation will become a playful social space.

