

Test Plan Solar Powered 3D Printer				
Key Milestones	Engineering Requirements	Test	Result	Meets ER Specification?
Functional 3D Printer				
	Power Consumption	Test with multimeter		y/n
	Build Volume	Constraint by printer		y/n
	Total Mass	Weigh on scale - grams		y/n
	Print Speed	Time print duration		y/n
	Resolution	Measure using indicator gauge		y/n
Functional Energy System				
	Power Consumption	Test with multimeter		y/n
	Relocation & Set up power source	Time assembly and time to move		y/n
	Assembly & Disassembly Time	Time assembly and time to move		y/n
Functional Pellet Extruder				
	Build Volume	Calculate change to build volume do to new print nozzle		y/n
	Print Speed	Time print duration		y/n
	Resolution	Measure using indicator gauge		y/n
	% Failures	Print five test prints, determine percent succesful		y/n
	Set up time (Include functionality swap)	Measure the time needed to swap from filament to pellet fed print		y/n
	Accepts Plastic Pellets	Yes or no		y/n
Cart Assembly and System Integration				
	Total Mass	Weight on scale		y/n
	Device Size	Measure Volume		y/n
	Time to connect/disconnect to solar	Measure the time needed to swap from grid to solar system		y/n
Laser/Printer Enclosure				
	Set up time (Include functionality swap)	Measure the time needed to acces printer components		y/n
	Device Size	Measure Volume		y/n
Functional Laser Engraver				
	Power Consumption	Test with multimeter		y/n
	Build Volume	Measure Volume		y/n
	Set up time (Include functionality swap)	Measure the time needed to swap from printing to laser engraving		y/n
				% Complete