

Test ID	Subsystem	Test Description
T1	UV	Use silicon detector to create map of UV output about the bulb
T2	UV	Test time to max power output
T3	Filters	Test flow rate of all filters with different applied pressure heads
T4	Filters	Collect pre/post turbid water filtration and measure with nephelometer
T5	Power	For each regulator in the power schematic we will supply a regulated voltage that is the expected input; i.e. the 5 V regulated circuit will be powered by 12-14 V then we will measure the output with no load on the circuit
T6	Power	We will simulate a load on the circuit through a power resistor and measure the output voltage
T7	Full System	Test Fertility factor of E.coli pre/post treatment according to USEPA 1602 guidelines
T8	Full System	Test other contaminant removal with water home test kit (test kit choice pending further investigation)

Purpose	Responsibility
To determine the residence time required for particles in water at a distance furthest away from bulb in batch treatment to attain the required amount of UV-C exposure to neuter microorganisms	UV Team
To determine the time that it takes for the bulb to emit its max power. This will be used to determine the feasibility of pulse batch treatment	UV Team
Empirically determine the relationship between flow rate and pressure head for the filtration system. Find equivalent resistance of filters	Filter Team
Determine the turbidity reduction of filtration process in Formazin Turbidity Units (FTUs)	Filter Team
To determine the open-circuit voltage	Power Team
Ensure that the circuit will be able to handle the load that we will put on it	Power Team
To determine the effectiveness of our systems' water purification	Erik
To find the reduction of other water contaminants to further characterize the system	Entire Team