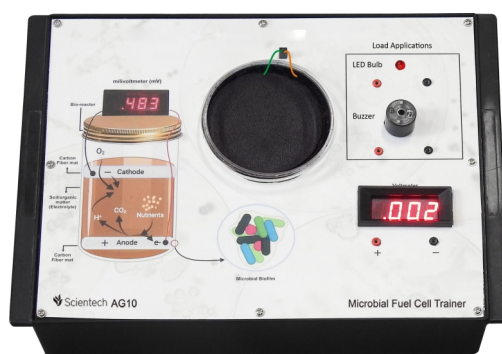




\*\* Shown image is just for illustration original may differ

Sciencetech AG10 Microbial Fuel Cell Trainer presents an exciting, emerging technology for generating electricity that is clean and reliable. In this module students will learn how electricity is produced by certain bacteria during their natural metabolic process and how a microbial fuel cell works.

Microbes are the engines that drive this process the microbial fuel cell utilizes this remarkable ability by providing soil-based microbes with two conductive carbon fiber mat discs, called the anode and cathode. The anode is placed within the soil where the electron-generating microbes can grow, while the cathode is placed on top exposing it to oxygen in the air.

Although we cannot see them with the naked eye, with bodies one-tenth the thickness of a human hair, micro-organisms or “microbes” live throughout virtually all dirt and sediment on the planet. Among these diverse communities of microbes are particular species that have the unique ability to release electrons outside their own bodies. The reading material and lab activities help provide concrete learning opportunities for abstract concepts. Students with minimal background knowledge in microbiology and electricity can also perform these activities.

## Scope of Learning

- Assemble a functional microbial fuel cell.
- Understand how a microbial fuel cell works.
- Measure voltage/Power generated by microbial fuel cell.
- Apply a load test on generated power.

## Technical Specifications

|                    |            |
|--------------------|------------|
| Generated Voltage: | <1Volt DC  |
| Cathode            | : 1no      |
| Anode              | : 1no      |
| Bio-reactor        | : 1no      |
| Load               |            |
| LED                | : 1no.     |
| Buzzer             | : 1no.     |
| DPM                | : 2Volt DC |

