Bacterial Food Poisoning Detector

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Food poisoning is a case that any person is being susceptible to every day and this study finds a solution for minimizing the risk of being food poisoned. This study aimed to examine the effectiveness of the Bacterial Food Poisoning Detector (BFPD) device on detecting the bacteria that causes food poisoning. The identification method was based on studies that prove that the microorganisms are able to produce three types of physical signals: sound waves, electromagnetic radiation, and electric currents. This study methodology contained two phases. First, a survey was designed and conducted to see the people's feedback about food poisoning and whether they would like to have a device that would be considered a solution for such problem by avoiding them from in taking this food. Second, the BFPD device has been developed to differentiate the presence and absence of the Salmonella bacteria by the use of the frequency the bacteria produce. This was done by surrounding a petri dish containing the Salmonella bacteriawith a coil that collects the frequency that was produced. This procedure was repeated to a S.s agar that doesn't have any Salmonella inside.The data obtained was between 26 and 100 μT for both petri dishes, the next step was to develop an amplifier circuit that expands the data obtained to make it easier to compared between the presence of the Salmonella and its absence. Once the bacteria have been identified the screen of the device will as a result show that Salmonella bacteria has been detected and estimate the percentage present.

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