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37 PROJECT

PROGRAMMABLE AND LOW-COST ULTRAVIOLET ROOM DISINFECTION DEVICE



The use of commercial proprietary equipment for UV-C radiation of the environment entails a significant cost to acquire the equipment and maintain it, because it is a proprietary technology. Most of the available equipment use low-pressure mercury lamps to produce UV-C radiation. These lamps can be acquired separately and used in the disinfection device we have created.

Features

- The system is easily scalable and can generate higher ultraviolet dosages by adding on more UV-C lamps
- The total cost of making this open source device is below USD 180 and it is easily customisable
- The device is configured in less than three minutes and does not require continuous monitoring
- The room disinfection device was initially designed for the periodic conditioning of culture rooms. Experimental tests showed very high effectiveness of this device to eliminate high bacterial inocula. The sanitising method employed by this device affects a very wide range of microorganisms and it has several advantages over chemical-based sanitising methods