**Cover Letter**

**Unmanned Drug Delivery Vehicle for COVID-19 Wards in hospitals**

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1. **Novelty and importance of the findings detailed in the paper:**

**The prime reason for proposing the work is designing and developing a low-cost guided wireless Unmanned Ground Vehicle (UGV) for use in hospitals for assistance in contactless drug delivery in COVID-19 wards. The Robot is designed as per the requirements and technical specifications required for the healthcare facility. After a detailed survey and tests of various mechanisms for steering and structure of UGV, the best mechanism preferred for steering articulated and for body structure is hexagonal as this approach provides decent performance and stability required to achieve the objective. The UGV has multiple sensors onboard, such as a Camera, GPS module, Hydrogen, and Carbon Gas sensor, Raindrop sensor, and an ultrasonic range finder on UGV for the end-user to understand the circumferential environment and status of UGV. The data and control options are displayed on any phone or computer present in the Wi-Fi zones only if the user login is validated. ESP-32 microcontroller is the prime component utilized to establish reliable wireless communication between the user and UGV.**

1. **Declaration: : I and my research supervisor don’t have any conflict of interest in the research manuscript that we are submitting.**
2. **Conflict of Interest**
* Research grants: --Nil--
* Honoria: --Nil--
* Employment or consultation: --Nil--
* Project sponsors: --Nil--
* Author’s position on advisory boards or board of directors/management relationships: --Nil--
* Multiple affiliation: --Nil--
* Other financial relationships/support: --Nil—
1. **Informed Consent:** Consent and permission was obtained from all participants prior to the study.
2. **Ethical Approval:** --Nil—
3. **Trial Registration:** --Nil—
4. **Contributorship:** Author 1 and 3 were involved in carrying out result analysis and publishing the manuscript. Authors 1 and 2 were involved in implementation, program design, and testing.