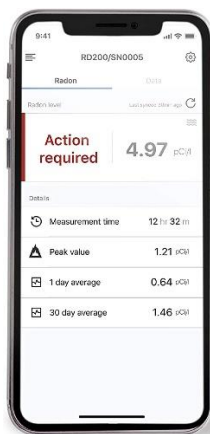




# DRONE BASED SENSING AND INSPECTION

Robotics in construction industry is a very new idea but recently has seen a lot of development in solving problems such as rebar tying, wall painting etc. We hereby, propose a drone-based sensing and inspection solution which can move manually and autonomously such that it can sense and inspect both inside and outside of a house. Then, with the assistance of on-field supervisor, it compares manual and autonomous data. Further, this solution can be developed to be used for commonly faced retrofitting issues. It will have the ability to sense and inspect areas which are less accessible through conventional methods. It will provide accurate status of issues such as wall, ceiling and floor cracks, roof damage, paint fading and flaking, harmful and poisonous gases such as radon, wall leakage (liquid or undesirable entities), presence of lead, etc.



Jayan Kant Duggal  
**Lead Robotics Engineer**  
[jduggal@gemtechnologiesinc.com](mailto:jduggal@gemtechnologiesinc.com)  
[LinkedIn](#)

Akash Atharv  
**Robotics Engineer**  
[aatharv@gemtechnologiesinc.com](mailto:aatharv@gemtechnologiesinc.com)  
[LinkedIn](#)

Jason Evans  
**Business Development Manager**  
[jevans@gemserve.com](mailto:jevans@gemserve.com)  
[LinkedIn](#)