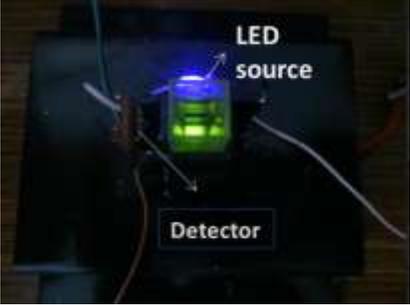
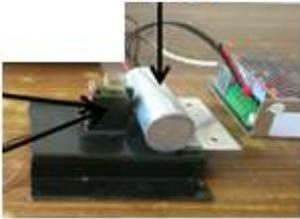


## Development of Water Quality Monitoring Watchdog Pod

<b>Laboratory Name</b>	CSIR-CSIO
<b>Brief Profile of Technology/Product</b>	<ul style="list-style-type: none"> <li>• <b>Technology:</b> It will estimate the water quality parameters such as fluoride, arsenic and nitrate concentration in potable water. The system will monitor following contaminants within prescribed limits:               <ul style="list-style-type: none"> <li>• Fluoride: 1ppm to 200 ppm (WHO limit: 1.5 ppm)</li> <li>• Nitrate: 10 ppm -200 ppm (WHO limit: 45 ppm)</li> <li>• Arsenic: 10 ppb to 50 ppb (WHO limit: 10 ppb)</li> </ul> </li> </ul>
<b>Returns/Benefits</b>	<p>As per recent surveys, around 37.7 million Indians are affected by waterborne diseases annually, 1.5 million children are estimated to die of diarrhoea alone and 200 million working days are lost due to waterborne diseases. The resulting economic burden is estimated at Rs 36,600 crore every year.</p> <p>Additionally, it is estimated that the equipment market related to water technologies is worth approximately Rs 200-300 million, and expected to have double-digit growth rates every year.</p>
<b>Validation Level</b>	Recently, lab-scale trials have been completed at NEERI, Nagpur, and results were satisfactory
<b>IPR Status [also indicating the status of the patent (if any) in 2015]</b>	Yet to be explored but, has potential for at least one patent
<b>End product price (if not available, estimated price)</b>	Rs.20,000-50,000/- appx.
<b>Technology/Product Collaborator</b>	CSIR-CSIO, Chandigarh is continuously interacting with Industry "Maffick Instruments Pvt. Limited, Ambala", who has shown expression of interest for existing lab-scale prototypes and has seen lab-scale technology demonstration as well.

<p><b>Relevance of Technology in present times</b></p>	<p>According to world resource institute recent report, India's water security is poor in the world and is most threatened, and thus to ensure water security, we must develop technologies to enable Sustainable Clean Water. Also, at present, available imported technologies are very expensive and at present no-made in-India technology is available to cater Indian market.</p>
<p><b>Similar technology/product developed</b></p>	<p>Available in international market</p>
<p><b>Picture of the technology/product (if any, with good resolution)</b></p>	<p><u><b>Fluoride</b></u></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Prototype</p> </div> <div style="text-align: center;">  <p>LED source Detector</p> </div> </div> <p><u><b>Nitrate</b></u></p> <div style="text-align: center;">  <p>Source Detector Sample</p> </div> <p><u><b>Arsenic</b></u></p> <div style="text-align: center;">  </div>

