

# Proposal

## Indigenous Design and low-cost implementation of a Solar powered unmanned functional sanitization tunnel to fight with COVID-19 infection

Submitted by



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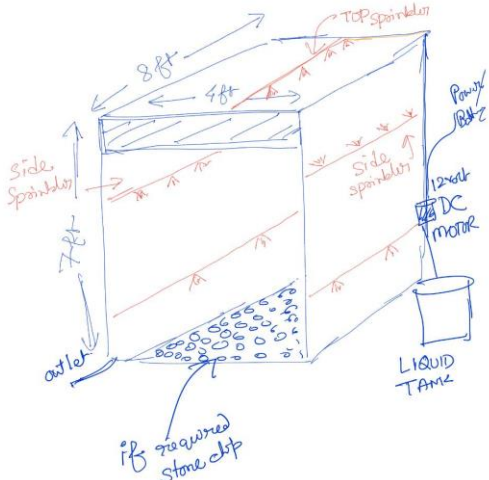
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<b>Title of Proposal</b>	<b>Indigenous Design and low-cost implementation of a Solar powered unmanned functional sanitization tunnel to fight with COVID-19 infection</b>
<b>Reference of proposal</b>	<p>Surface sanitization of human body, commodities, cargo item etc in public places to prevent peripheral infection. A possible measure to sanitize movement in potentially sensitive zone as Hospitals, Market place, Administration Offices etc.</p> <p><b>What is it</b> – A tunnel or gateway for the sanitisation and decontamination of items surface and people when combined with appropriately atomised biocides and/or virucide spray.</p> <p><b>What is it Used For</b> – Sanitary and decontamination Tunnels and Gates represent a safe protection and entry for everyone, in particular for those who work in close contact with groups and are therefore at higher risk. It can be installed at the entrance of public offices, pharmacies, supermarkets, airports, hospitals, stations. It is suitable for all who need to sanitise the workforce, goods, vehicles and materials.</p> <p><b>How it Works</b> – The tunnel creates an obligatory passage and is equipped with, internal atomising nozzles that saturate the environment but preventing dispersions. The spraying system is connected to a control system capable of automatically switching the spraying on a human or object entry. Spraying from different sides and angel help in covering 360 degree. The liquid level , spraying control all can be controlled from a mobile phone and effectively the resources can be managed with Machine learning algorithms.</p>
<p><b>Objectives of the proposal</b></p> <p>The serious global situation has led us to create a solution that can be of public value: a disinfection tunnel with an integrated, control system for the atomisation of any biocides and virucides and sprinkling from different directions. The tunnel contains the atomised liquid spray inside to effectively saturate the environment. In this way it is possible to disinfect all surfaces even those which are not directly exposed to the nozzles.</p> <p><b>Sanitization tunnel is very important on public entry -exit point , specially hospitals and market .</b></p> <p>We are in a position to make a functional <b>sanitization tunnel</b> which is solar powered , automated and can be used in everyday basis in academic institutions for general peripheral body sanitization.</p> <p>This tunnel will be portable, can be easily transportable from one place to another, on emergency battery operated, very low power consuming design, the sprinkling rate and operation can be automated or manual.</p> <p>Running cost : Only disinfectant liquid and nominal power.</p>	
<p>Status of the proposal:</p> <p><b>Ready to production.</b></p> <p>This system can count and report number of person passing through the tunnel, operational statistic, self-reporting of sprinkler and sanitizer liquid quantity.</p>	

<p>Please note: A referenced photographed for representational purpose only. The actual dimension and colour may vary depending on available raw material.</p>	
<p>A hand sketch of the proposal</p> <p>Power unit separately designed and single chip programmable system will be used as controller.</p>	
<p>Timeline Of manufacturing</p>	<p><b>One unit in 2-3 days</b></p>
<p>Special Note</p>	<p>✓ Artificial Intelligence based control and operation designed for optimum resource usage and long run operation.</p>
<p>Research , experiment and development cost(One time)</p>	<p><b>₹ 50,000/-</b></p>
<p>Expected Total Cost of manufacture a unit tunnel with AI control and Solar power</p>	<p><b>₹ 45,000/-*</b>  <b>(Rupees forty thousand only)</b>      *With change in dimension and functionality the cost may be reduced or increased.</p>
<p>Manual Tunnel with basic feature will cost</p>	<p><b>₹ 35,000/-*</b>  <b>(Rupees twenty five thousand only)</b>      *With change in dimension and functionality the cost may be reduced or increased.</p>

On behalf of NIT Agartala proposal prepared and placed by

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