

**Project Title:** Virtual Eye-Lifeguard for swimming pools to detect active drowning  
**Project Design Phase- I – Solution Fit Template**  
**Team ID:** PNT2022TMID34450

Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> Who is your customer? i.e. working parents of 0-5 y.o. kids  <b>Every candidate attending a National Pool Lifeguard Qualification (NPLQ) course must be 16-years-old and jump or dive into deep water. swim 50 metres in less than 60 seconds.</b>	<b>6. CUSTOMER CONSTRAINTS</b> <span>CC</span> What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.  <ul style="list-style-type: none"> <li>Constant network connection</li> <li>Camera misunderstanding normal swimming actions to be abnormal.</li> <li>Cost of fitting and maintenance</li> </ul>	<b>5. AVAILABLE SOLUTIONS</b> <span>AS</span> Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking  <b>Setting up of camera and monitoring each and every person swimming in the pool. setting an alarm to notify the Lifeguard Detects and prevents active drowning</b>	Explore AS, differentiate
	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <span>J&amp;P</span> Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.  <b>Beginners, often feel it difficult to breathe underwater which causes breathing trouble which in turn causes a drowning accident in swimming pool. As water is much denser than air, so there is much more resistance preventing people from being able to move through it quickly and freely so sometimes even they experienced people will find difficulty to swim</b>	<b>9. PROBLEM ROOT CAUSE</b> <span>RC</span> What is the real reason that this problem exists? What is the back story behind the need to do this job? i.e. customers have to do it because of the change in regulations.  <ul style="list-style-type: none"> <li>The main problem is an alert is being sent to Lifeguard only after the person is drowned down.</li> <li>however, they cannot save a person before drowning down</li> </ul>	<b>7. BEHAVIOUR</b> <span>BE</span> What does your customer do to address the problem and get the job done? i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)  <ul style="list-style-type: none"> <li>Saving people life</li> <li>Take effective action in emergency situation</li> <li>Attentive and energetic</li> </ul>	
Identify strong TR & EM	<b>3. TRIGGERS</b> <span>TR</span> What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.  <b>The customer is triggered by their surrounding talking about this approach of detecting and preventing active drowning.</b>	<b>10. YOUR SOLUTION</b> <span>SL</span> If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality. If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.  <b>we make use of one camera that streams the video underwater and analyses the position of swimmers to assess the probability of drowning</b>	<b>8. CHANNELS of BEHAVIOUR</b> <span>CH</span> <b>8.1 ONLINE</b> What kind of actions do customers take online? Extract online channels from #7  <b>8.2 OFFLINE</b> What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.  <b>ONLINE: Develop an application and provide all sort of assistance to the users regarding the virtual eye.</b>  <b>OFFLINE: Provide quality safety wares while swimming</b>	Identify strong TR & EM
	<b>4. EMOTIONS: BEFORE / AFTER</b> <span>EM</span> How do customers feel when they face a problem or a job and afterwards? i.e. lost, insecure > confident, in control - use it in your communication strategy & design.  <b>BEFORE: Fear of unprotected swimming</b> <b>AFTER: Fearless and satisfactory swimming experiences</b>			