

PROJECT DESIGN PHASE 1

PROBLEM – SOLUTION FIT TEMPLATE

Date	12 October 2022
Team ID	PNT2022TMID01612
Project Name	VirtualEye-Life Guard for Swimming Pools to detect Active Drowning
Maximum Mark	2 mark

Problem-Solution fit canvas 2.0

Purpose / Vision

Define CS, fit into CC	1. CUSTOMER SEGMENT(S) Who is your customer? i.e. working parents of 0-5 y.o. kids Swimming is a kid's favorite aquatic sport and it's a great stress buster.	4. CUSTOMER CONSTRAINTS What constraints prevent your customers from doing action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices. Usually, such systems can be developed by installing more than 16 cameras underwater and ceiling and analyzing the video feeds to detect any anomalies.	5. AVAILABLE SOLUTIONS Which solutions are available to the customer 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. One is that the camera is mounted on the underwater swimming pool wall, then monitor underwater customer status. A limitation of the equipment is that if too many swimmers, the occasion problem arises. The other is that the camera is mounted upon the ceiling, and position too. Swimmer's posture change. The reflection and refraction of light in air-water interface will affect the image quality, and swimming man feature this method detected a new way to strengthen supervision and detect drowning. The third is a combination of the two, underwater camera and aerial camera matched, monitoring the swimming status. This system meets customer requirements which is the main disadvantage.	Explore AS, differentiate
	Focus on J&P, tap into BE, understand RC	2. JOBS-TO-BE-DONE / PROBLEMS Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one, explore different sides. Every year, many individuals, including kids under the age of 5, drown in the deep end of the swimming pool and the lifeguards are not well trained enough to handle these situations.	9. PROBLEM ROOT CAUSE 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. Swimming is a kid's favorite aquatic sport and it's a great stress buster. But in the water, beginners often feel hard to breathe which causes choking actions, loss of balance and results in a drowning accident. Some special circumstances, such as cramps, collide with each other, disease or mental stress and so on may also cause swimmer to drown.	
Identify strong TR & EM		3. TRIGGERS What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news. The triggers are seeing people drowning and the lifeguards are not well trained enough to handle these situations.	10. YOUR SOLUTION If you are working on an existing business, write down your current solution first, fit it 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. By studying body movement patterns and connecting cameras to artificial intelligence (AI) systems we can devise an underwater pool safety system that reduces the risk of drowning. Usually, such systems can be developed by installing more than 16 cameras underwater and ceiling and analyzing the video feeds to detect any anomalies.	8. CHANNELS of BEHAVIOUR 8.1 ONLINE What kind of actions do customers take online? Extract online channels from #7. 8.2 OFFLINE What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.