

Project Design Phase-I

Problem – Solution Fit Template

Date	27 October 2022
Team ID	PNT2022TMID29259
Project Name	Industry-specific intelligent fire management system
Maximum Marks	2 Marks

Template:

Problem-Solution fit canvas 2.0

Purpose / Vision

<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold;">Define CS, fit into CC</div> <div> 1. CUSTOMER SEGMENT(S) CS <p>Industry Workers as well as others</p> </div> </div>	<div style="display: flex; justify-content: space-between;"> <div> 6. CUSTOMER CONSTRAINTS CC <p>No proper knowledge about the fire management system. Equips the usual fire management procedures such as installing fire extinguisher and sand buckets Thinking about the capital invested on the fire management system .</p> </div> <div> 5. AVAILABLE SOLUTIONS AS <p>Laser technology solutions detect smoke by drawing air into a laser chamber to identify the possible threat. Interfacing the smoke sensor and DHT sensor with the arduino and turning on the fire alarm .</p> </div> </div>	
<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold;">Focus on J&P, tap into BE, understand CC</div> <div> 2. JOBS-TO-BE-DONE / PROBLEMS J&P <p>We are solving the problem of fire spread by automatically detecting the fire at the ignition stage and stop the fire spread easily using Artificial Intelligence and IOT based ideations.</p> </div> </div>	<div style="display: flex; justify-content: space-between;"> <div> 9. PROBLEM ROOT CAUSE RC <p>Every industries have lots of materials that are highly inflammable, in case of any fire outbreak, the fire gets spread drastically Hence due to the fire outbreak, loss of fire may occur. It causes an huge damage to the industrial properties</p> </div> <div> 7. BEHAVIOUR BE <p>This system can alert the nearby fire stations and the respective authorities in case of a fire occurrence As an immediate response the fire alarms and water sprinklers will be turned on in order to alert the worker and suppress the fire respectively</p> </div> </div>	
<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold;">Identify strong TR & EM</div> <div> 3. TRIGGERS TR <p>The damage to industry causes an huge loss in production of industry The loss of lives creates an huge loss of their family and also creates an fear to work in that industry</p> </div> </div>	<div style="display: flex; justify-content: space-between;"> <div> 10. YOUR SOLUTION SL <p>This Fire management system includes temperature sensor, gas sensor, flame sensor. If the temperature increased limit automatically the exhaust fans will be switched on .If suppose the flame is detected automatically the sprinklers will be switched on. If the harmful gases detected automatically the alarm will be switched on. Emergency alerts are noticed to the nearest fire stations and authorities.</p> </div> <div> 8. CHANNELS of BEHAVIOUR CH <p>1. ONLINE The managers and staff can continuously monitor the temperature and flame. In case of any fire is detected immediately the nearby fire station gets alerted</p> <p>8.2 OFFLINE The sensors with the help of intelligence can stop the fire spread at the initial stage itself.</p> </div> </div>	
		<div style="display: flex; justify-content: space-between;"> <div> 4. EMOTIONS: BEFORE / AFTER EM <p>Injury or Death : A fire in an industry that results in injury or death will have huge consequences on the business owner or manager responsible for the safety of their employees and, or customers, the family of anyone who is injured or dies and the businesses ability to trade and their reputation</p> </div> </div>

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References:

- <https://www.ideahackers.network/problem-solution-fit-canvas/>
- <https://medium.com/@epicantus/problem-solution-fit-canvas-aa3dd59cb4fe>