

Problem Statement 3:

Customized AI Kitchen for India.

Prerequisites:

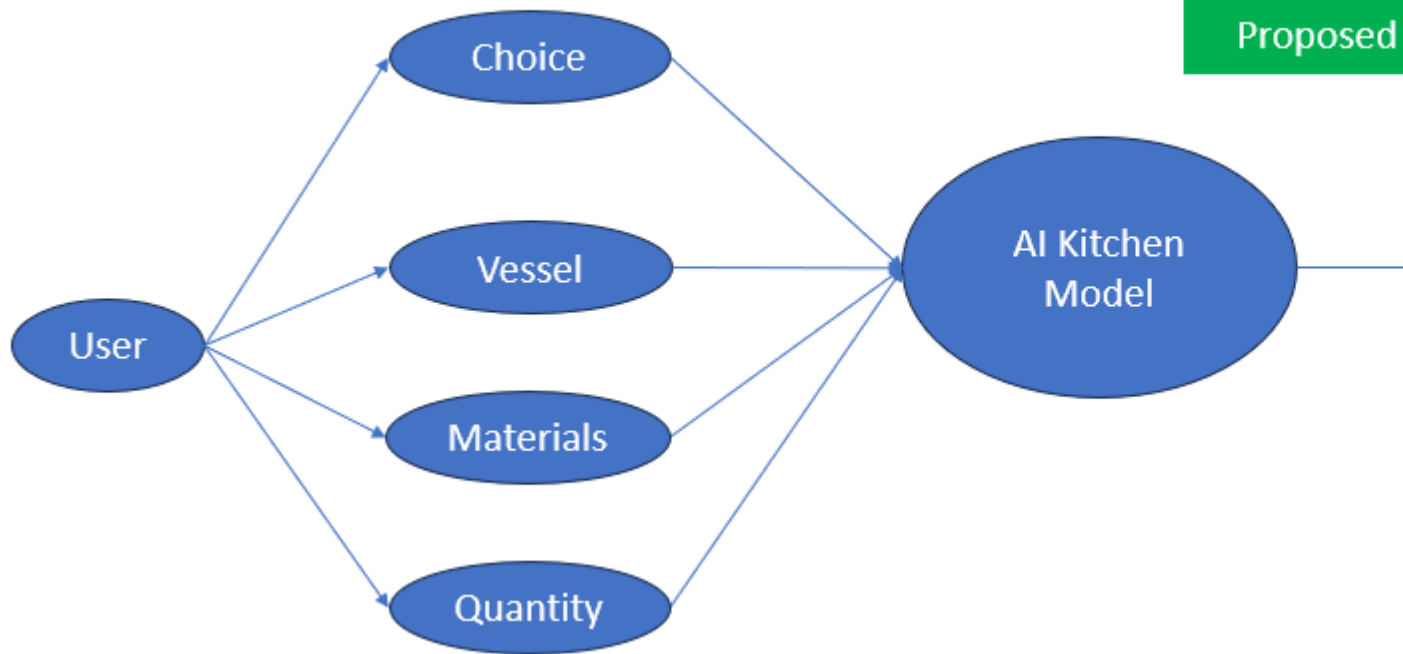
1. Embedded HW system functionality which can be used for AI application.
2. Python script to write logic and make use of existing libraries.

We are in the world of AI (Artificial Intelligence) now and idea here is to develop AI kitchen model for customized dishes.

It's one the challenging that we have every day to prepare dishes in time at home. There could be AI based vending machines, coffee and bread making products in the market now, but this would not cover all the dishes of user's choice.

Another bigger issue to get the vessels for cooking which must be ready / washed. We have vessels washing machines but, it requires manual intervention to put them for washing or take it after washing. Idea here is to address that as well. Pick a right vessel based on the quantity.



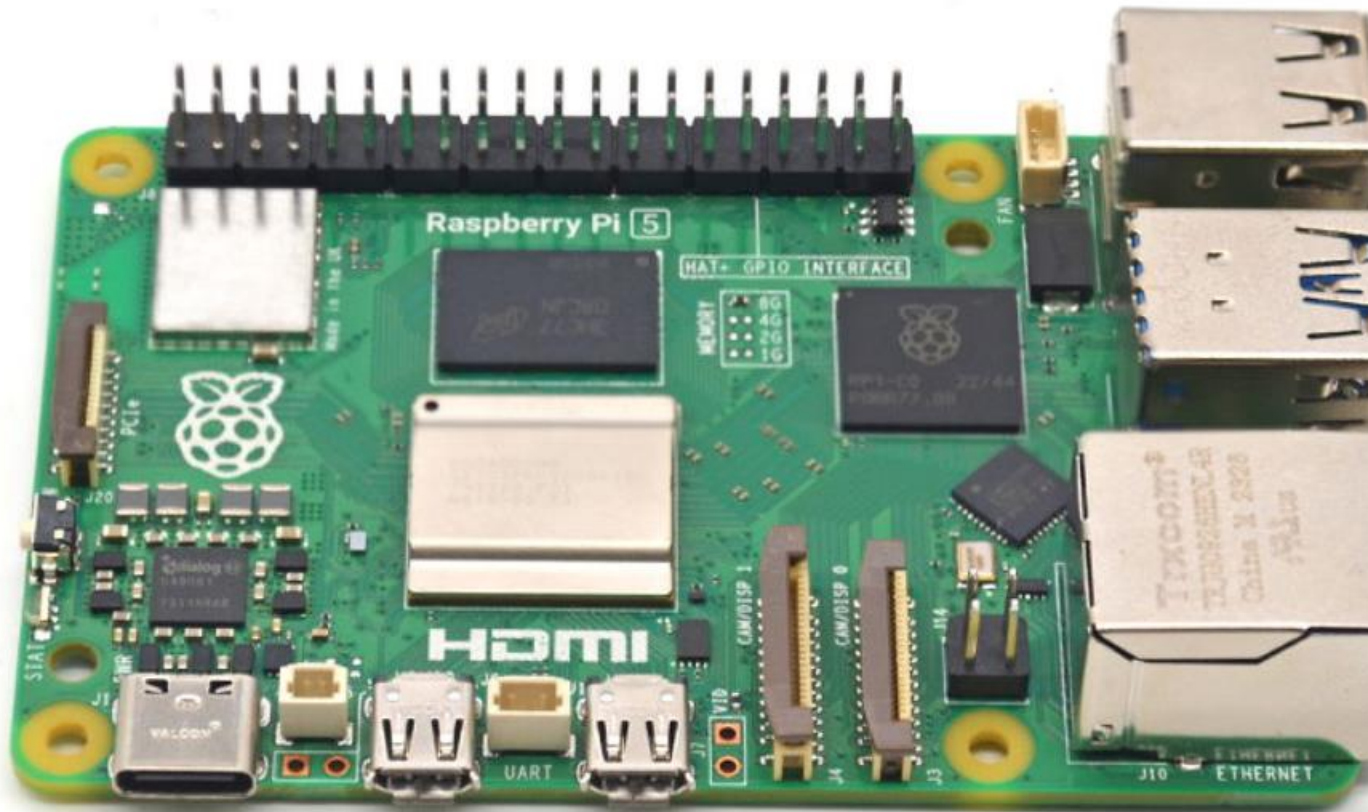


Integrating 2 requirements here of AI kitchen with Vessels washing machine connected.

1. For Cooking dishes of user choice: AI training
 - Different raw material detection – image processing.
 - Come up with the ingredient to make a dish and do image processing to detect raw materials.
Example: Rice, vegetables, salt. Water. Vessels of different dimensions.
2. Controlling system to turn on the vessels washing machine, with robots putting vessels simulate using Relay or GPIO control.
 - Simulate using any IDE is fine.
 - Robots using stepper motor operations.

Example:

Using Raspberry Pi 5:



Deliverables:

1. Come up with AI model with Training to cook users' choice including ingredient selection with quantity.
2. Programming option to detect right vessel and request to get them from washing machine automatically.
3. Indication of raw materials required, notify if they are not present.
4. Non microwave oven option to be given and come up with requirement to integrate that with AI kitchen model.