

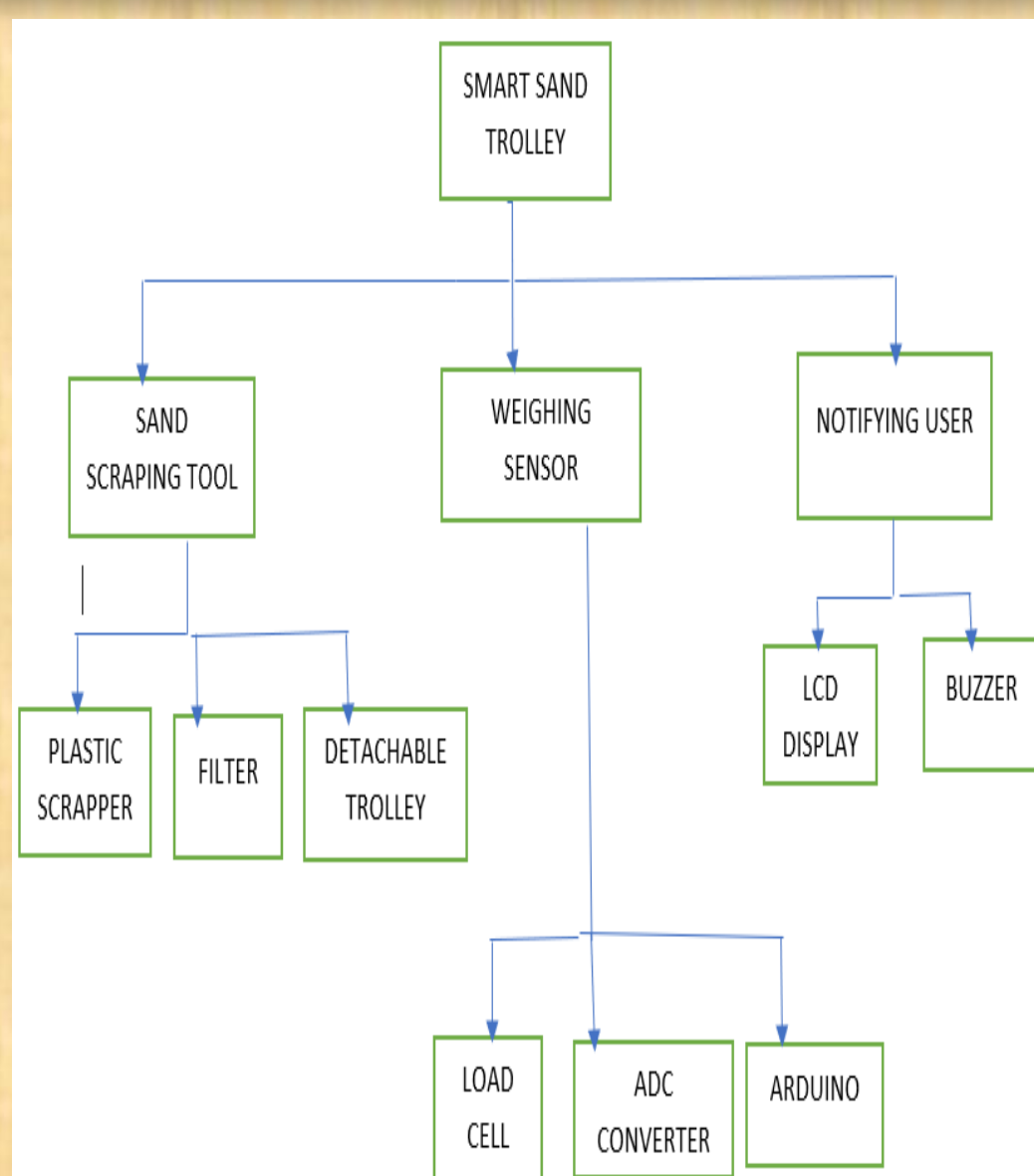
## Problem Statement

Our aim is to make an efficient and smart trolley which can be operated manually without much effort by the masons.

## Objectives

- 1) To make the masons life easy with help of an efficient easy to use sand Trolley
- 2) To make the sand free from stones or other particles before it is being put to use
- 3) To collect exact amount of ingredients in the bags with the use of weighing sensors
- 4) To Alert the mason if weight of bag increases the specified amount.

## Model & Methodology



### Hardware Components

1. Arduino Uno
2. Load cell
3. HX 117 ADC Converter
4. LCD , bolt, cap , pipe
5. Metal Handle, Box
6. Bread board

### Functional Modules

1. Sensing module
2. Process module
3. Scrapping module

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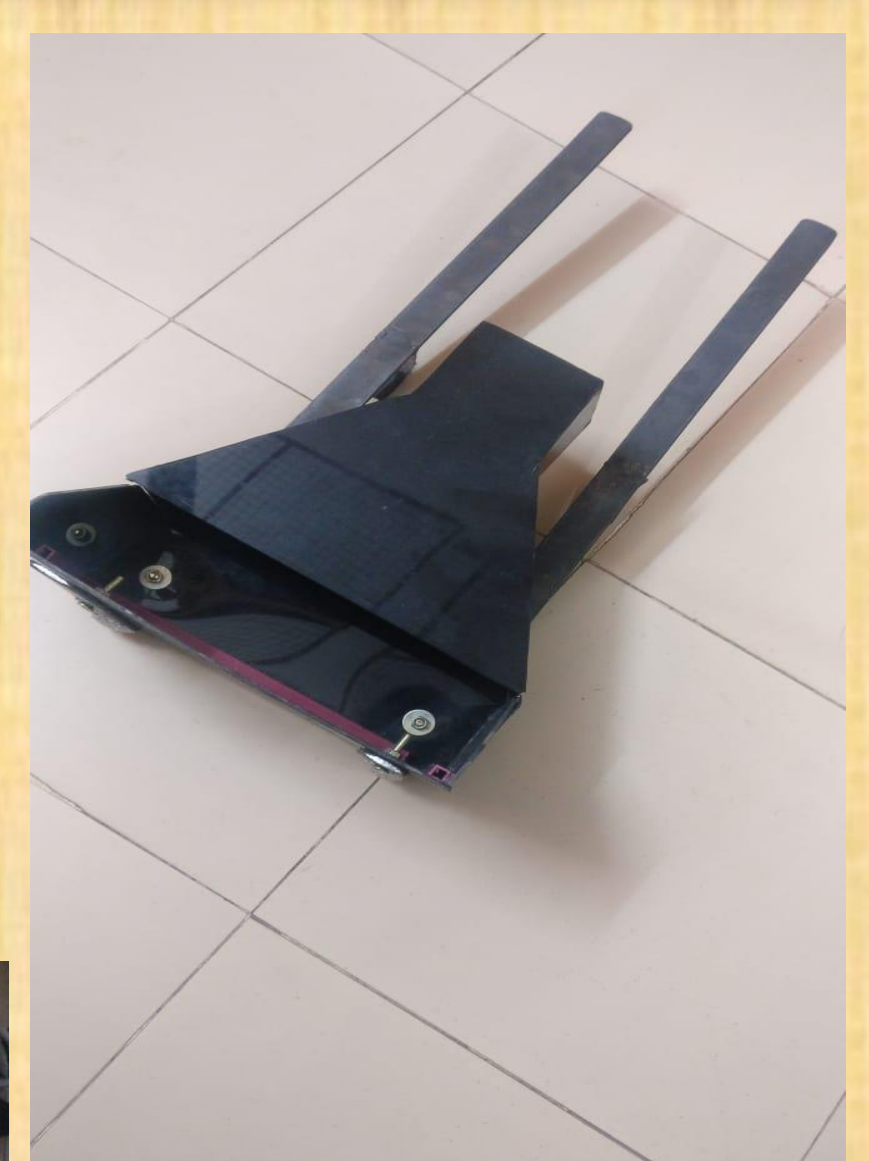
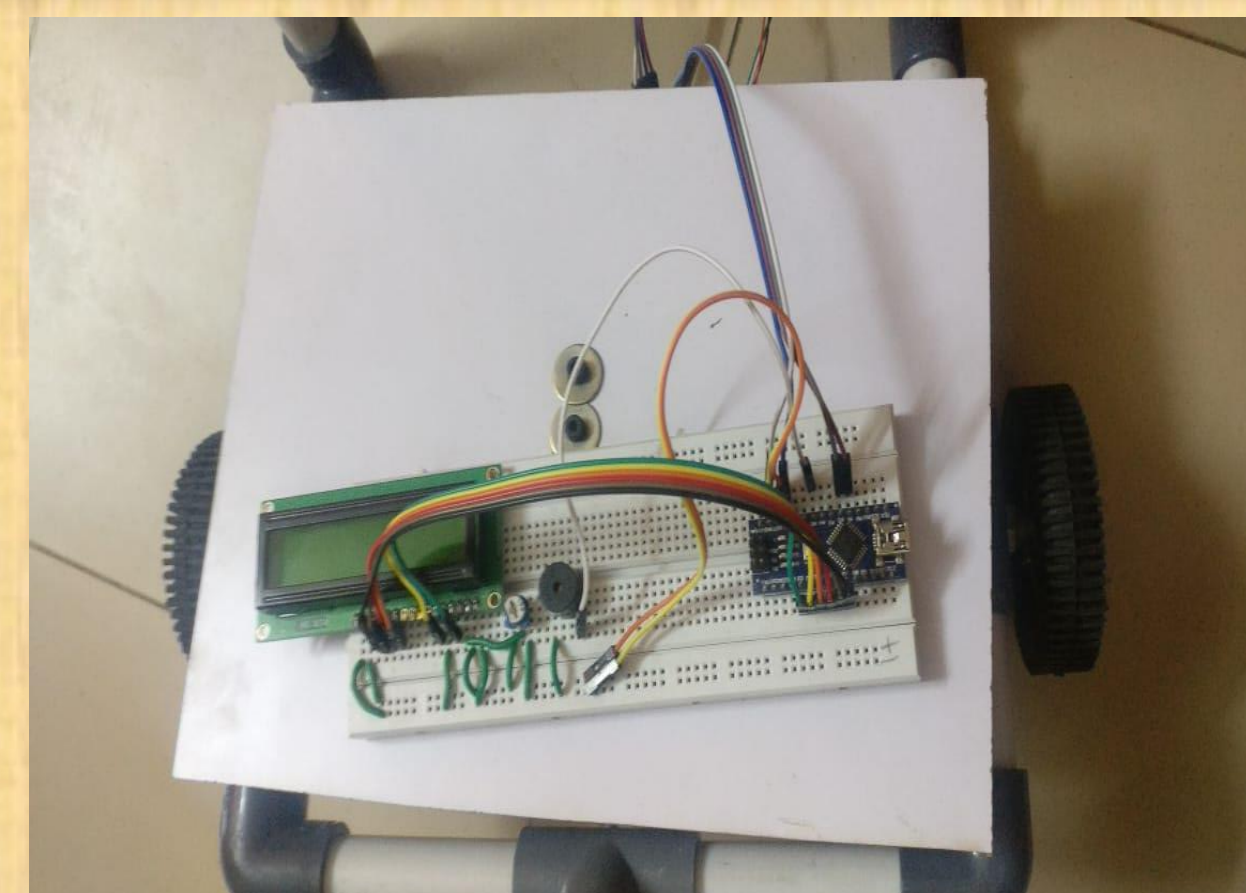
### Softwares:

1. Arduino IDE

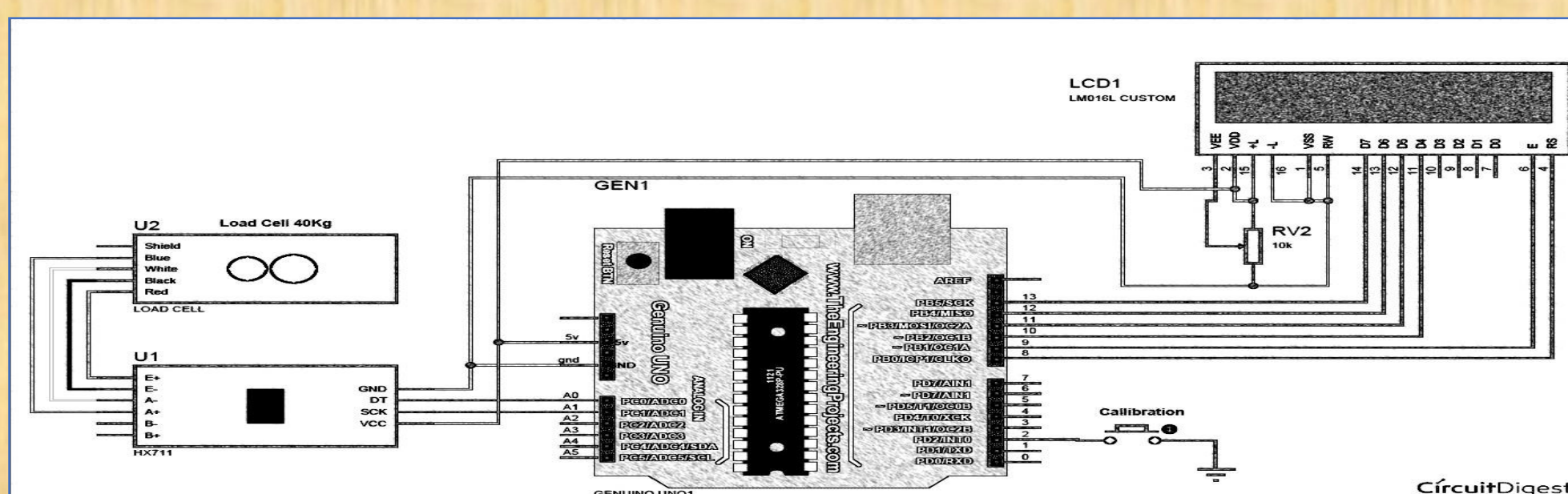
## Graphical Abstract



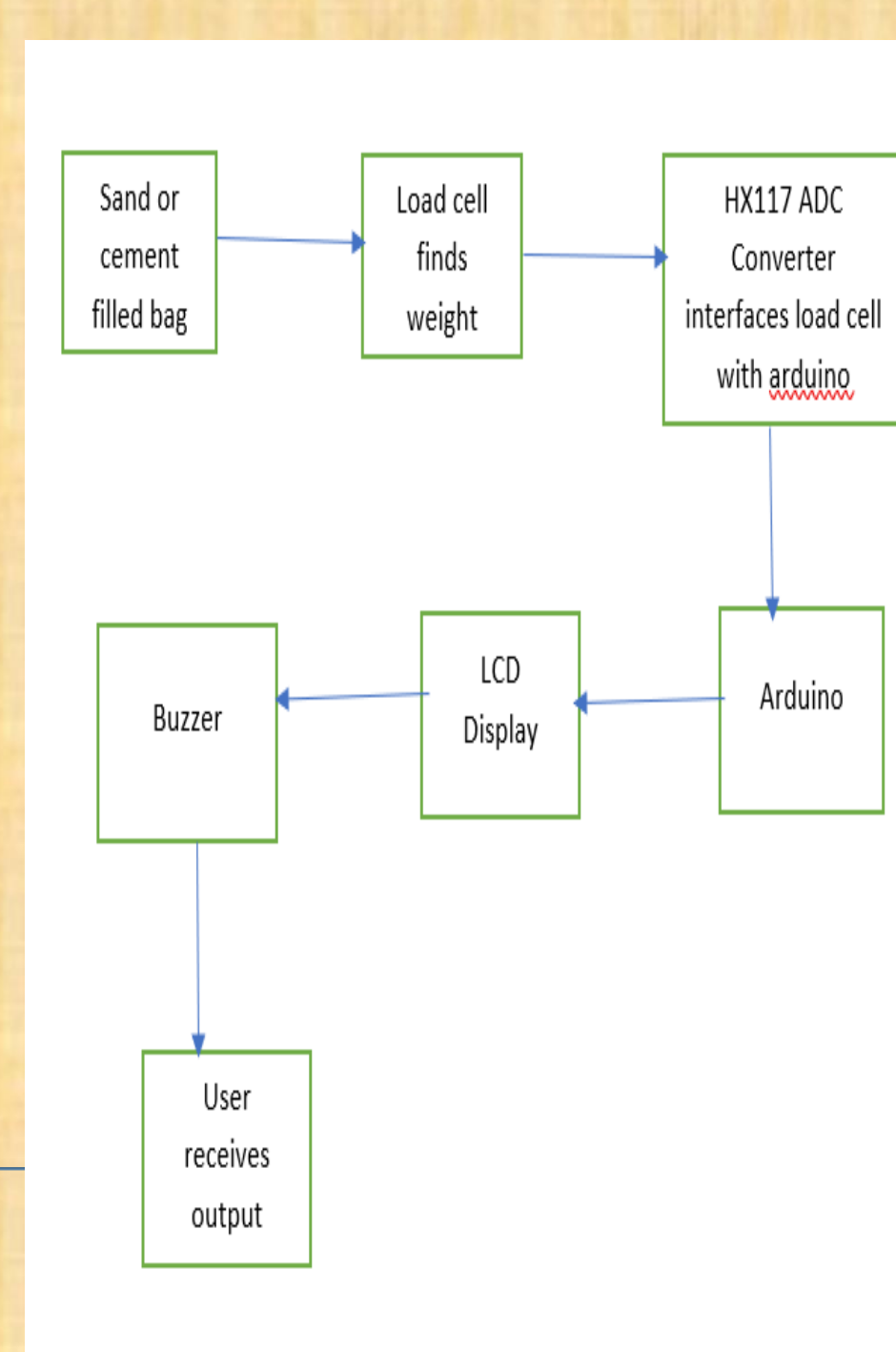
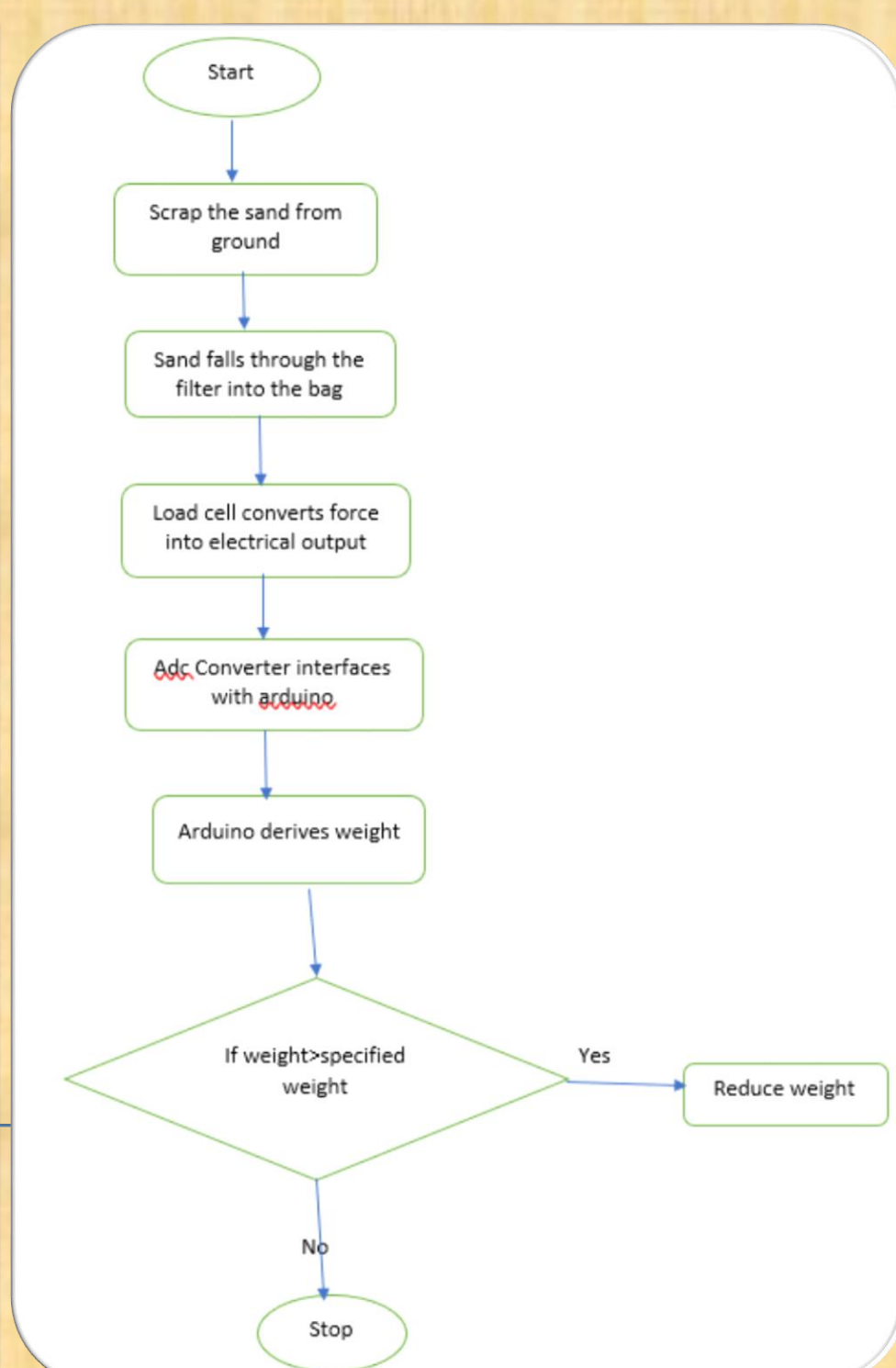
## Experimental Setup & Results



## Configuration



## Work Flow



## Conclusions

- 1) Smart Sand trolley will be specially useful in construction sites. All type of construction works can be become easy with the help of this smart trolley.
- 2) It efficiently filters out the debris from sand and pours clear sand into the bag
- 3) Thus our smart sand trolley works efficiently. It is easy to move and scrap sand with this trolley.
- 4) As soon as weight increases beyond specified limit buzzer starts buzzing which notifies and alerts the user of the bag weight.

## Team



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