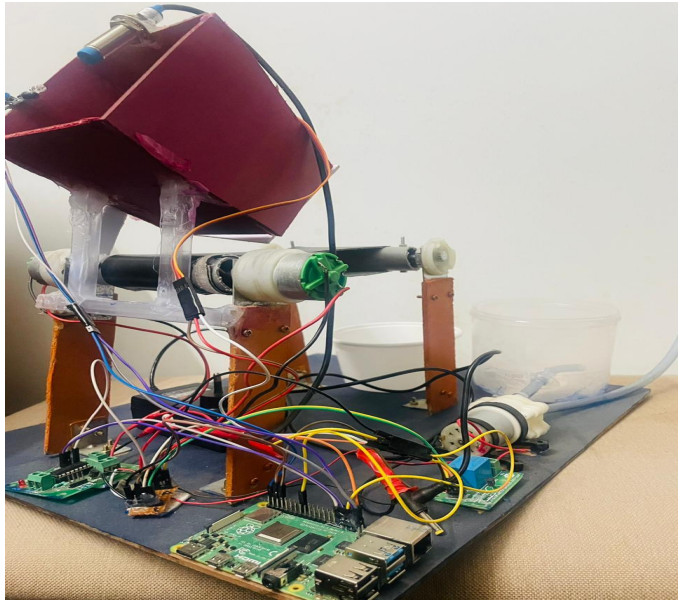
PRESIDENCY UNIVERSITY

Private University Estd. in Karnataka State by Act No. 41 of 2013

SCHOOL OF ENGINEERING

INNOVATIVE PROJECT - RASPBERRY PI USING PYTHON(CSE1003)

Title: Automatic vending machine for recycleable water waste using raspberry pi



IPR-141

28th December 2022

A reverse vending machine (RVM) works opposite to that of a vending machine , the main feature of our model is that it is a smart machine for plastic disposal i.e, it accepts plastic waste for recycling and in return dispenses drinking water. Verification is done whether they are plastic bottles or not using object detection technique based on pre-trained values. After the detection, the bottles are stored in the machine using conveyer belt , it uses a IR sensor to ensure that the input is plastic and a metal sensor is used to detect if the input waste is metal , and it rejects if it is a metal waste. Once the garbage enters the bin , data will be sent to raspberry pi through IR sensors . IF the input waste satisfies the conditions, a signal will be sent to the aqua pump and dispenses the water. The bottles in the storage are later sent to the recycling units.
So our main aim is to collect all these plastic and provide something to the society.This model can be conveniently placed in public locations for use.

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