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(57) Abstract :

The system (100) includes a display cum selection unit (101), a sensor unit (103), a garbage entry duct (105), a controller unit (107), a garbage collection bed (109), shutters (111 A & 111 B), wipers (113), a vibrator (115), a pick and place robo mechanism (117), and a recyclable chamber (119) and non-recyclable chamber (121). The display cum selection unit (101) is configured to display the mode of selection, which can be either automatic mode or manual mode. In automatic mode, the system identifies the type of garbage and collects it accordingly, while in manual mode, the user selects the type of garbage for collection. The sensor unit (103) detects and identifies the type of garbage through image processing. The controller unit (107) includes a sorting & recycling algorithm module (205), a sorting module (205A), a recycling module (205 B), and an image processing module (205 C). The controller unit (107) activates the necessary components to collect the garbage in the appropriate chamber either at recyclable chamber (119) or non-recyclable chamber (121).

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