

TITLE OF INVENTION

AUTOMATIC SORTERING ASSEMBLY FOR USE IN FOOD COURT**ABSTRACT OF DISCLOSURE**

An automatic sorting assembly for separating dining ware including plates, cups, bowls, forks
 5 and spoons and the like is disclosed. The assembly comprises:

(a) a tray with embedded RFID chip for holding/supporting dining ware;

(b) a conveyor means on a horizon platform for transporting the dining ware placed on the tray
 toward a sorting end of the platform, wherein the tray is grabbed by a grapping device and is
 flipped in a substantially 90 degree to despatch the dinning were to a collecting chute;

10 (c) a tray piling trolley to collect the tray after the tray is flipped and disengaged from the
 grapping device;

thereby when the tray with the dinning wear on the tray is being placed onto the conveyor
 means, the conveyor means is triggered to move and transport the tray until the discharge
 end of the platform, where the dining wear is collected at the collecting churn and the tray is
 15 piled up at a tray collecting trolley. The present invention is also relates to a method of sorting
 the tray and dining ware using the sorting assembly.

(FIG. 1)