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| **Abstract:** |  |
| In a world where the population is inevitably increasing, waste produced is progressively increasing as well. In this project, an autonomous waste sorting machine was made which could detect multiple classes of waste materials, and then separate them accordingly. The waste products were taken as input in a funnel-shaped structure and dropped one by one to a conveyor belt where they would be detected by machine learning technique using Faster-RCNN, and then a servo motor would separate them according to the detection result. In rare cases, there are some misdetections of the waste materials, but the reliability of the detection was very high. Our project can facilitate human efforts to separate waste products and can make the waste sorting system completely automatic. | |