

ε1.3 Patent Summary Sheet

Instructions

In your engineering notebook or on this form, document each patent you find related to the major project problem you have identified. Your instructor may want you to print or partially print the related patent.

Source (APA format):

葉, 傑生.(2020). *Robotic system for picking, sorting, and placing a plurality of random and novel objects*. (Taiwan Patent No. 202021760A). Taiwan Intellectual Property Office.
[https://patents.google.com/patent/TW202021760A/en?q=\(screw+sorting\)&num=100&oq=screw+sortin](https://patents.google.com/patent/TW202021760A/en?q=(screw+sorting)&num=100&oq=screw+sortin)
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Patent Number:

TW202021760A

Patent Summary:

Summarize the patent in your own words. Highlight the key pieces of information, including features and benefits.

The patent includes a robotic arm that has a double-jointed arm and a rotating turret to rotate the arm on the horizontal plane. The arm includes a magnetic end effector to pick up magnetic pieces to sort them in bins. This is good for a small amount of medium sized objects.

Patent Critique:

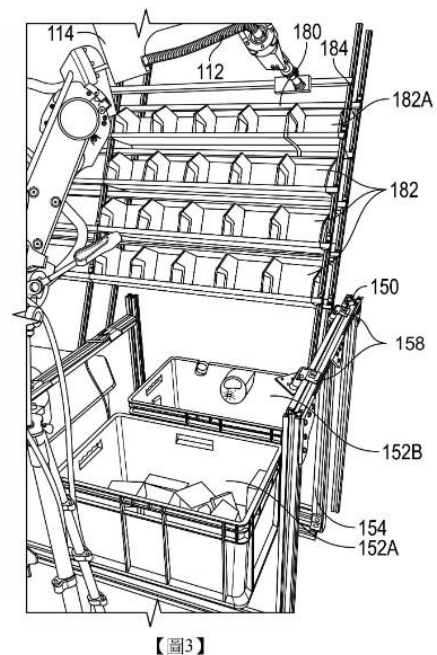
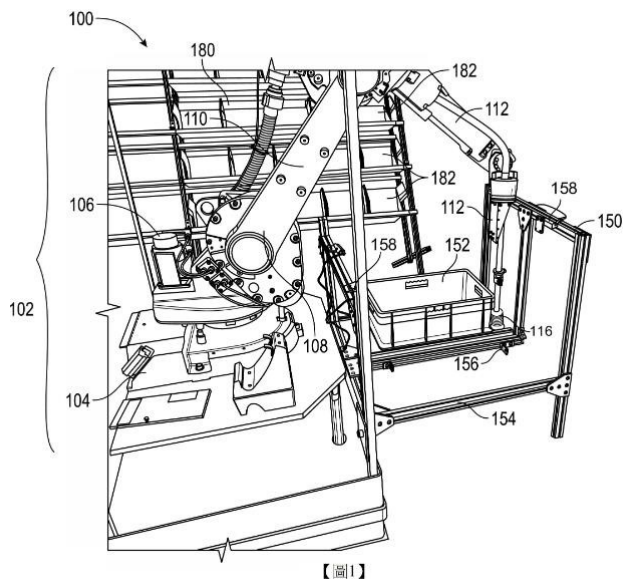
How does the patented item solve or attempt to solve your problem or a similar one? What are some good and bad attributes of the item? What unique aspect does the patent add to your overall research?

This patent attempts to solve my problem by picking up one piece at a time and sort it in different boxes. This is bad because it will take too long to sort a whole box of screws and the magnetic end effector could accidentally

pick up multiple screws at a time. It will also be very time consuming to program. This patent is unique because it presents a way to sort screws one at a time.

Images/sketches:

Attach images or sketches related to the patent that help describe the solution.



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Source (APA format):

지석영. (2012). *Sorting device of bolts*. (South Korea Patent No. 101172459B1). Korean Intellectual Property Office.
[https://patents.google.com/patent/KR101172459B1/en?q=\(screw+sorting\)&num=100&oq=screw+sorting](https://patents.google.com/patent/KR101172459B1/en?q=(screw+sorting)&num=100&oq=screw+sorting)

Patent Number:

KR101172459B1

Patent Summary:

Summarize the patent in your own words. Highlight the key pieces of information, including features and benefits.

The patent sorts the screws by height by letting the user pick a max and minimum height for the screws they wish to have in one box. The user sets the height by setting the heights of metal wires above a conveyor in which the screws pass through. If the screw hits the maximum height wire the servo will actuate placing that screw the “bad box.” If the screw does not hit the minimum height wire the servo will also actuate.

Patent Critique:

How does the patented item solve or attempt to solve your problem or a similar one? What are some good and bad attributes of the item? What unique aspect does the patent add to your overall research?

This patent attempts to solve my problem by sorting a lot of screws by the maximum and minimum screw heights/lengths desired by the user. This patent is able to quickly sort a large number of screws which is a good attribute, but the patent can only sort screws in 2 piles: does it meet the height requirement or does it not. This is a bad attribute because there will be multiple screw lengths that need to be sorted, and in our case, there is no “bad” screw pile.

Images/sketches:

Attach images or sketches related to the patent that help describe the solution.

