Soontech Annals
EC07: Unstackable Item Encoder

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Features

- Uses Pyra's unstackable sorter to sort items at hopperspeed.

- Built-in box loaders for each item type.

- Sorts music discs, enchanted books, potions, flint & steel, shears, powdered snow buckets, lava buckets, water buckets, boats, armor and minecarts in that order.

- Fully hopperlocked.

- Built-in queue for output.

Applications

- Sorting and encoding unstackable items.

General Description

The EC07 Unstackable Item Encoder is a device that sorts unstackable items using Pyra's unstackable sorter and then outputs boxes of the sorted items along with an encoded signal. The device features a built-in queue to output boxes of items upon request. The device is fully hopperlocked and is designed to sort music discs, enchanted books, potions, flint & steel, shears, powdered snow buckets, lava buckets, water buckets, boats, armor and minecarts in that order. Item codes can be set by modifying the read-only memory of the device. See the corresponding explanation video on Youtube.

Figure 1: Unstackable Item Encoder

Figure 2: Slice of Unstackable Item Encoder Output Controller

Configuring Item Codes

Item codes can be set by replacing the white stained glass blocks at the bottom of the device with observers corresponding to the desired item code. No codes are set by default.
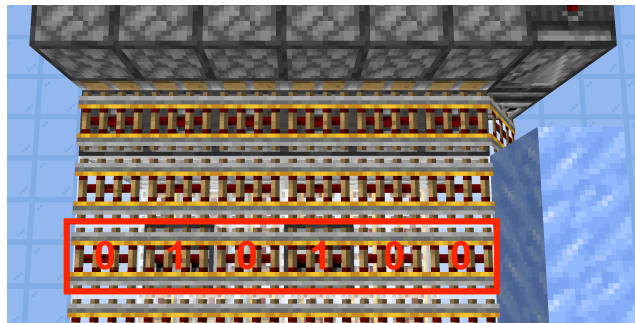

Figure 3: Setting Item Codes

Device Specifications

Table 1: Inputs

Name	Range	Description
Unstackable input	Item	Unstackable items to be sorted. Barrel input.
Arrows	Item	Arrow items to break armor. Barrel input.
Request	Pulse	Request for output. Noteblock input.
Hopperlocking	0-1	Controls hopperlocking. Lever input.

Table 2: Outputs

Name	Range	Description
Box output	Box	Box of sorted items output on request. Waterstream output.
Item code	Code	6 bit encoded signal corresponding to item type of output.

Table 3: Device Specifications

Parameter	Min.	Typ.	Max.	Unit	Conditions
Throughput	8	-	-	gt	Item input
MC Version	1.21	1.21.4	-	MCV	Latest version at time of writing: 1.21.4
Dimensions	8 x 22 x 14			Blocks	

Testing Data

Table 4: Executed Tests

Test	Result
Throughput test	Device was able to function with various unstackable input
Output test	Device was able to output boxes with item codes

Download Information

Table 5: Download Information

Identifier	MC	File	Description
EC07	1.21	EC07_Unstackable_Item_Encoder.litematic	Schematic of device.