## Soontech Annals

# **IM02: 1000 Item RAM**

By: Andrews54757

Tags: item-memory, random-access

## **Features**

- Has 1000 different codes/item types. a dropper of storage per code.
- Random access. Can insert and retrieve items in constant time in any order.
- Half hopperspeed order throughput. Can execute insertions and retrievals every 16 game ticks (exclusive, can't do both at same time).
- Hopperlocked. Is fully hopperlocked.
- Togglestateless. No piston toggle states.

# **Applications**

- Temp storage for merging.
- Dynamic bulk mapping storage.

Figure 1: 1000 Item RAM

# **General Description**

The IM02 is able to store and retrieve items with a specific decimal code. This may be useful as a temp storage in an encoded dynamic sorting system.

# **Device Specifications**

Table 1: Inputs

Name	Range	Description
Code Digit 1	1-10	First digit indicating leaf.
Code Digit 2	1-10	Second digit indicating row.
Code Digit 3	1-10	Third digit indicating column.
Execute insertion	Pulse	Executes insertion with the given settings.
Execute retrieval	Pulse	Executes retrieval with the given settings.
Item Input	Item	Item to be inserted/retrieved.

## Table 2: Outputs

Name	Range	Description
Item Output	Item	Output for retrieval orders.

## Table 3: Device Specifications

Parameter	Min.	Typ.	Max.	Unit	Conditions
Order Execution Interval	16	-	-	gt	Normal Usage
Hopper Count		1111		Hoppers	
MC Version	1.13	1.17.1	-	MCV	Latest version at time of writing: 1.19.3
Dimensions		53 x 55 x 28		Blocks	

# **Testing Data**

Table 4: Executed Tests

Test	Result	
Insertion	Items were successfully inserted in all positions.	
Retrieval	Items were successfully retrieved from all positions.	

## **Download Information**

Table 5: Download Information

Identifier	MC	File	Description
IM02	1.17.1	$IM02\_1000\_item\_RAM\_p2.litematic$	Litematic of item RAM device.