#### Soontech Annals

# EC05: Hopperspeed Encoder With Minimal Code Items

By: willymc

Tags: encoders, hopperspeed

#### **Features**

- Hopperspeed (9000 items/hr) encoding.
- Adjustable and expandable to work with any base.
- Requires only 2 items per item type per chest.
- Cart yeeter based cart recycler and storage.

# **Applications**

• Encoding items

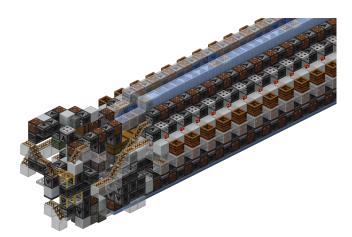


Figure 1: Hopperspeed Encoder With Minimal Code Items

## **General Description**

The EC05 encoder uses multiple hoppercarts to allow for hopperspeed item to code encoding. Unlike other hopperspeed encoders, this design only requires 2 items per item type per chest, the minimum amount possible.

# **Device Specifications**

#### Table 1: Inputs

Name	Range	Description		
Box input	Box Item	Single-type box with items for encoding.		

#### Table 2: Outputs

Name	Range	Description				
Box output	Box Item	Outputs the inputted box timed with the code.				
Code signal	Code	Outputs a redstone signal corresponding to the mapped item code.				

#### Table 3: Device Specifications

Parameter	Min.	Typ.	Max.	Unit	Conditions
Throughput	8	-	-	gt	Normal Usage
Active Lag	+4	+8	+10	ms	At Hopperspeed. Ryzen 5 3600, 2GB RAM. MC 1.19.3 with Lithium.
MC Version	1.19	1.19.3	-	MCV	Latest version at time of writing: 1.20.4
Dimensions		11 x 13 x 84		Blocks	

# **Testing Data**

Table 4: Executed Tests

Test	Result
Box encoding test	Device was able to encode with box input
Throughput test	Device was able to encode at 8gt throughput with randomized input. Four different codes were set with items in consecutive chests.

## **Download Information**

Table 5: Download Information

Identifier	MC	File	Description
EC05	1.19.3	${\tt EC05\_Hopperspeed\_Encoder\_With\_Minimal\_Code\_Items.litematic}$	Schematic of device.