

# EC05: Hopperspeed Encoder With Minimal Code Items

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## 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

## General Description

The EC05 encoder uses multiple hoppercart 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.

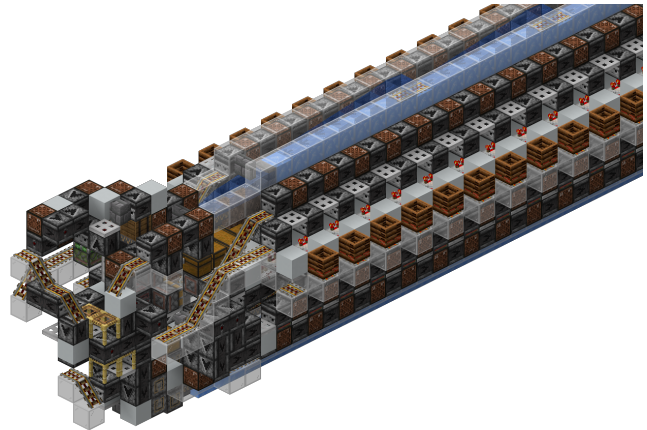


Figure 1: Hopperspeed Encoder With Minimal Code Items

## 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	<a href="#">EC05_Hopperspeed_Encoder_With_Minimal_Code_Items.litematic</a>	Schematic of device.