

# EC03: 16gt Item Encoder

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Tags: encoders, half-speed

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## Features

- Uses 9 carts for half-hopperspeed (16gt) throughput
- Requires only 1 item per type per chest.
- MTE compatible.
- Self resettable toggle states.

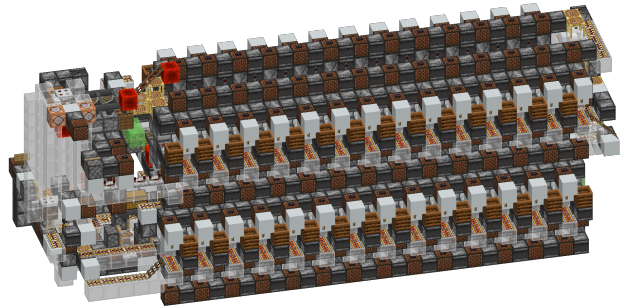


Figure 1: 16gt Item Encoder

## Applications

- Encoding items

## General Description

The EC03 16gt encoder has a 16gt throughput encoder core which only requires one item per type in a chest. It uses 9 carts but can be easily modified with cart yeeting in 1.19+ (carts in storage are all empty). It is dustup-dateless, honeyless, and MTE compatible.

## Device Specifications

**Table 1: Inputs**

| Name       | Range | Description        |
|------------|-------|--------------------|
| Item input | Item  | Item for encoding. |

**Table 2: Outputs**

| Name        | Range | Description  |
|-------------|-------|--|
| Item output | Item  | Outputs the inputted item.                             |
| Item Code   | Code  | Outputs redstone signals corresponding to mapped code. |

**Table 3: Device Specifications**

| Parameter  | Min.         | Typ.   | Max. | Unit   | Conditions  |
|------------|--------------|--------|------|--------|---|
| Throughput | 16           | -      | -    | gt     | Normal Usage  |
| Active Lag | +1           | +1.4   | +2   | ms     | At half-hopperspeed. Ryzen 5 3600, 2GB RAM. MC 1.18.1 with Lithium. |
| MC Version | 1.13         | 1.18.2 | -    | MCV    | Latest version at time of writing: 1.19.3                           |
| Dimensions | 38 x 15 x 11 |        |      | Blocks |   |

## Testing Data

**Table 4: Executed Tests**

| Test               | Result  |
|--------------------|---|
| Item encoding test | Device was able to encode with item input                           |
| Throughput test    | Device was able to encode at 16gt throughput with randomized input. |

## Download Information

**Table 5: Download Information**

| Identifier | MC     | File   | Description                                     |
|------------|--------|--|---|
| EC03       | 1.18.2 | <a href="#">EC03_16gt_encoder_core_p2.litematic</a>                | Schematic of encoder.                           |
| EC03B      | 1.19   | <a href="#">EC03_16gt_encoder_core_dispenser_1.19_p2.litematic</a> | Schematic of encoder with 1.19+ cart dispenser. |