

# EC06: Item to Binary Encoder With Safety Features

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## Features

- 10 bit encoding with up to 1024 codes
- Easily accessible coding chests
- Safety features to prevent errors
- Dry fire protection and detection

## Applications

- Encoding items

## General Description

The EC06 Item to Binary Encoder With Safety Features is a 10 bit encoder with up to 1024 codes. It has safety features to prevent errors, namely dry fire protection and detection. It uses bit grouping to reduce the amount of chests needed for encoding. [Youtube video](#)

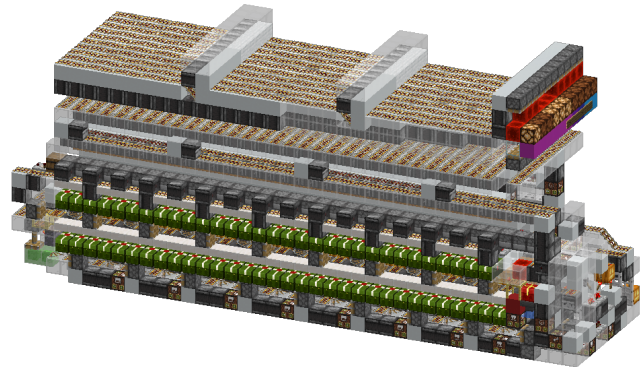


Figure 1: Item to Binary Encoder With Safety Features

## 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 binary code corresponding to the mapped item.
Error	0-1	Outputs redstone signal if error is detected.

**Table 3: Device Specifications**

Parameter	Min.	Typ.	Max.	Unit	Conditions
Throughput	175	-	-	gt	Normal Usage
Latency	119	-	-	gt	From input to code output.
MC Version	1.16	1.17.1	-	MCV	Latest version at time of writing: 1.20.4
Dimensions	12 x 19 x 40			Blocks	

## Testing Data

**Table 4: Executed Tests**

Test	Result
Encoding test	Device was able to encode properly with random input.

## Download Information

**Table 5: Download Information**

Identifier	MC	File	Description
EC06	1.17.1	<a href="#">EC06_Item_to_Binary_Encoder_With_Safety_Features.zip</a>	WDL of device.
EC06	1.17.1	<a href="#">EC06_Item_to_Binary_Encoder_With_Safety_Features.litematic</a>	Schematic of device.