

# LC05: Stateless Find Nearest

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Tags: logic-and-computation

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## Features

- Stateless, uses quasi-based logic
- Will not output more than one group at a time, even with random slice activation/deactivation timings

## Applications

- Box groupers

## General Description

The LC05 find nearest dispenser outputs items from first filled dropper in line with each pulse. With an 8gt clock this will have an additional 8gt transition delay between groups. Items can be inserted during operation and the thing won't output multiple groups at same time by accident.

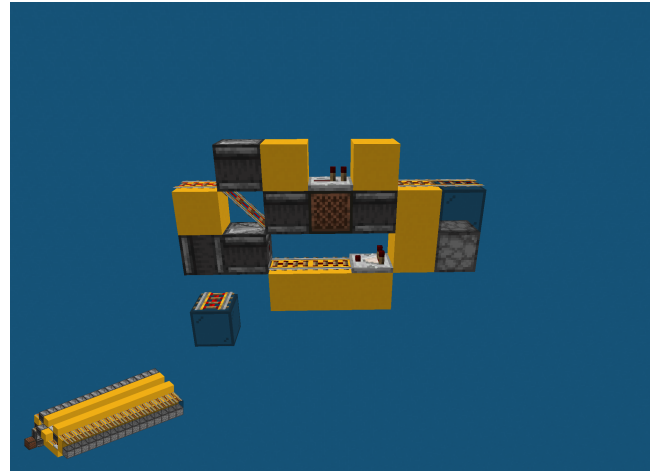


Figure 1: Stateless Group Dispenser

## Device Specifications

**Table 1: Inputs**

Name	Range	Description
Clock signal	Pulse	Outputs an item with each pulse.

**Table 2: Outputs**

Name	Range	Description
Item Output	Item	Output item from first dropper in line.

**Table 3: Device Specifications**

Parameter	Min.	Typ.	Max.	Unit	Conditions
Throughput	8	-	-	gt	Normal Usage
Latency	6	-	-	gt	From input to dropper activation.
MC Version	1.13	1.17.1	-	MCV	Latest version at time of writing: 1.19.3
Dimensions	3 x 4 x 8			Blocks	

## Testing Data

**Table 4: Executed Tests**

Test	Result
Throughput test	Device was able to function with 8gt clocked input.

## Download Information

**Table 5: Download Information**

Identifier	MC	File	Description
LC05	1.17.1	<a href="#">LC05_stateless_find_nearest.litematic</a>	Schematic of device.