Soontech Annals

# LC07: Decimal Delay Generator

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## Features

- 10gt to 19gt variable delay
- SS5-14 input
- Not random activation timings safe

## Applications

- Slot iterator device for dynamic bulk code mappings storage.

## General Description

The LC07 Decimal Delay Generator takes a decimal input and outputs a pulse after a delay of 10 to 19 game ticks. The delay is equal to the input signal strength plus 5. The device can be used to generate precise extraction trigger signal for a 1 slot/gt iterator device.

**Figure 1: Decimal Delay Generator**

## Device Specifications

**Table 1: Inputs**

| Name | Range | Description |
|---|---|---|
| Decimal input | 5-14 | Determines length of delay. Delay is signal strength $+5gt$ |
| Input trigger | Pulse | Starts the delay generator |

**Table 2: Outputs**

| Name | Range | Description |
|---|---|---|
| Delayed trigger | Pulse | Delayed output pulse |

**Table 3: Device Specifications**

| Parameter | Min. | Typ. | Max. | Unit | Conditions |
|---|---|---|---|---|---|
| Throughput | 22 | - | - | gt | Normal Usage |
| Delay | 10 | - | 19 | gt | From input to dropper activation. |
| MC Version | 1.16 | 1.19.3 | - | MCV | Latest version at time of writing: 1.20.4 |
| Dimensions | 4 x 5 x 2 | | | Blocks | |

## Testing Data

**Table 4: Executed Tests**

| Test | Result |
|---|---|
| Delay test | Device was able to produce all delays ranging from 10 to 19 gt as determined by the input signal strength. |
| Failed random timings test | Device was unable to survive random activation timings. A slider became stuck in the wrong state. |

## Download Information

**Table 5: Download Information**

| Identifier | MC | File | Description |
|---|---|---|---|
| LC07 | 1.19.3 | LC07_Decimal_Delay_Generator.litematic | Schematic of device. Test input regions included. |