



**MOBLO**

## **Moblo 5X5 User manual**

## Configuration Moblo

### ■ Product configuration & function : Based on Junior package

Configuration	EA	Function
<b>Board plate</b>	1	<ul style="list-style-type: none"> <li>• 9 blocks are stacked on each coordinates.</li> <li>• Total 25ea coordinates can be recognize in length and breadth.</li> <li>• Bluetooth® V4.0 supported, writhing with tablet PCs.</li> <li>• Firmware update by USB port</li> </ul>
<b>3D block</b>	0	<ul style="list-style-type: none"> <li>• 7 colors</li> <li>• Inner LED can be lighting.</li> <li>• Stacked on the board plate or can stack another blocks on the top.</li> </ul>
<b>Shape block</b>	0	<ul style="list-style-type: none"> <li>• 7colors</li> <li>• Inner LED can be lighting on the board plate and 3D blocks.</li> </ul>
<b>NFC block</b>	0	<ul style="list-style-type: none"> <li>• NFC(Near Filed Communication) supported</li> <li>• NFC figures and cards can be stacked.</li> <li>• Stacked on the board plate or can be stacked on the top of 3D blocks.</li> </ul>
<b>Touch block</b>	0	<ul style="list-style-type: none"> <li>• Inner touch sensor using electrostatic</li> <li>• Motor block and mobile contents can be operated by a touch.</li> <li>• Stacked on the board plate or can be stacked on the top of 3D blocks.</li> </ul>
<b>Motor block</b>	0	<ul style="list-style-type: none"> <li>• Various devices attached to the shaft and can be rotated.</li> <li>• In addition to propeller offered using Lego blocks etc., various formation is possible.</li> <li>• Stacked on the board plate or can be stacked on the top of 3D blocks.</li> </ul>
<b>NFC figure</b>	0	<ul style="list-style-type: none"> <li>• NFC(Near Filed Communication) supported</li> <li>• A figure comes to realization in the contents of Moblo, Block maker, Story maker etc.</li> <li>• Available on the top of NFC blocks only</li> </ul>
<b>NFC card</b>	0	<ul style="list-style-type: none"> <li>• NFC(Near Filed Communication) supported</li> <li>• A property of cards comes to realization in the contents of Moblo, Story maker, Moblo a to z, Math monster etc. for learning.</li> <li>• Available on the top of NFC blocks only</li> </ul>
<b>Propeller</b>	0	<ul style="list-style-type: none"> <li>• Motor block attached</li> <li>• A rotation realization in the contents of Moblo, Block maker etc.</li> </ul>
<b>Power adaptor</b>	1	<ul style="list-style-type: none"> <li>• For power supply</li> <li>• Connected to the power port of the board plate</li> </ul>
<b>User manual</b>	1	<ul style="list-style-type: none"> <li>• Specifications, configuration, basic explanation, warning etc.</li> </ul>

## Configuration Moblo

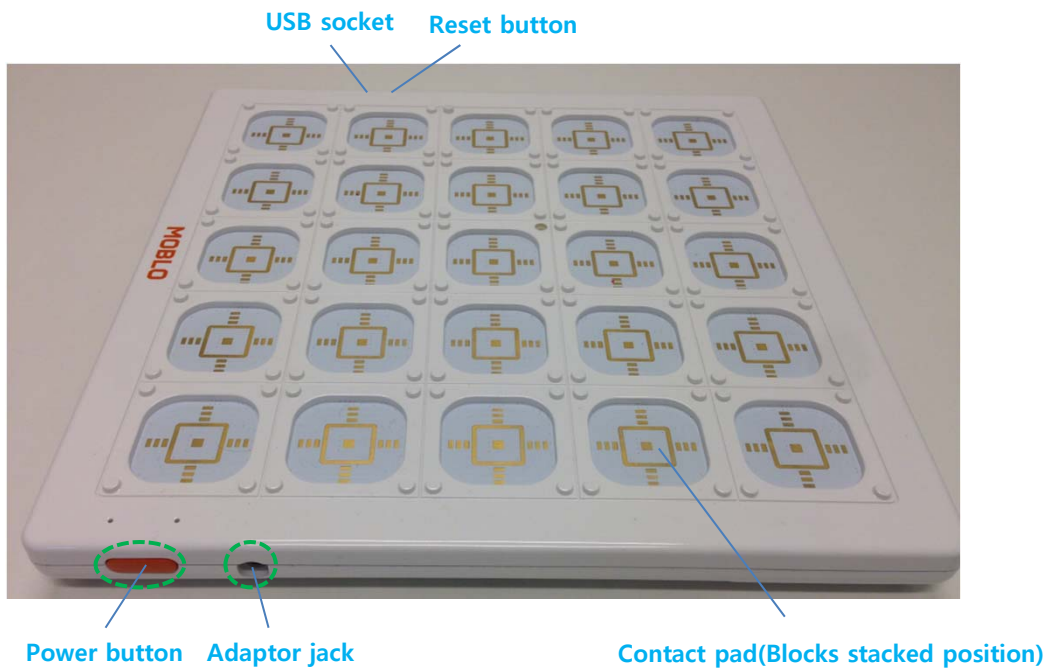
### ■ Certification numbers : Korea Certification

Products	KC numbers
Board plate	MSIP-CMM-M3B-MBL2C-BP55
3D block	MSIP-REM-M3B-MBL2G-3D
Shape block	MSIP-REM-M3B-MBL2G-S
NFC block	MSIP-CMM-M3B-MBL2G-N
Touch block	MSIP-REM-M3B-MBL2G-T
Motor block	MSIP-REM-M3B-MBL2G-M



# Moblo description

## Board plate



## 3D blocks



- 1layer block : 7colors, built in LED

## Shape blocks



- Building roof or top description
- 7 shapes
- 7 colors
- Built in LED
- Used on the top of board plate, 3D blocks

## Moblo description

### ■ NFC blocks



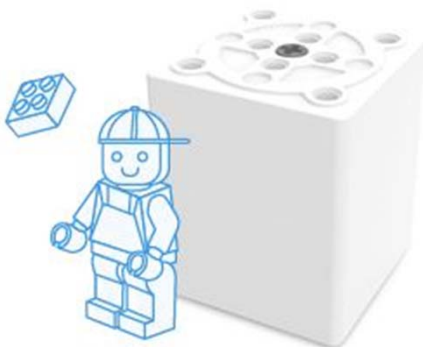
- NFC(Near Field Communication) supported
- NFC figures and cards can be stacked.
- Used on the top of board plate, 3D blocks

### ■ Touch blocks



- Inner touch sensor using electrostatic
- Top, bottom, left and right input touched
- Another blocks or function of contents controlled
  - Motor, LED lighting, moving the character in the mirror-world
  - Installed beside the working blocks
- Used on the top of board plate, 3D blocks

### ■ Motor block



- Clockwise and counter-clockwise rotation
- Speed and direction control
- Lego blocks can be attached.
- Used on the top of board plate, 3D blocks

### ■ NFC figure



- NFC(Near Field Communication) supported
- 5 characters : Elephant, puppy, rabbit, bear, fox
- Matched with character in the contents
- Used on the top of NFC blocks

## Moblo description

### ■ NFC card



- NFC(Near Field Communication) supported
- Realization thru the mirror-world with contents
- Available on the top of NFC blocks only

### ■ Propeller



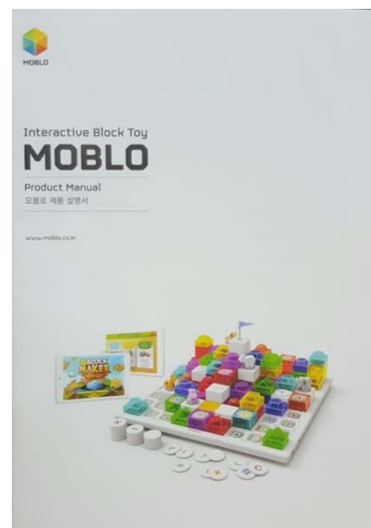
- Motor block attached
- A rotation realization by the contents

### ■ Power adaptor



- Input : AC 100~240V / 0.8A max.
- Output : DC 5V/4A max.
- For power supply

### ■ User manual



## How to use Moblo

### ■ Contents running scene



(Ex.)Block maker

After Bluetooth pairing, click the 'O.K' icon

### ■ Contents utilization



(Ex.)Block maker

Make use of contents using the board plate, blocks, NFC cards, NFC figure etc.

## Moblo specification

### ■ Board plate

Item	Description
Power	<ul style="list-style-type: none"> <li>• Input : 5Vdc/4A max. Adaptor</li> <li>• Output : 5Vdc</li> </ul>
RF	<ul style="list-style-type: none"> <li>• Bluetooth® V4.0 low energy</li> <li>• GFSK modulation</li> <li>• 2.4GHz ~ 2,4835GHz</li> <li>• Inverted F antenna by PCB pattern</li> </ul>
I/O	<ul style="list-style-type: none"> <li>• USB 2.0 'A' type socket(for debug port) 1ea</li> <li>• H/W reset button 1ea</li> </ul>
Size	<ul style="list-style-type: none"> <li>• 280 X 280 X 28mm(max.)</li> </ul>
Weight	<ul style="list-style-type: none"> <li>• about 1.0Kg</li> </ul>
Operating Temp.	<ul style="list-style-type: none"> <li>• 0°C ~ +50°C</li> </ul>

### ■ Blocks :

Item	Description	Blocks
Power	• Input : 5Vdc	• All
	• Output : 5Vdc	• 3D blocks
I/O	• UART 1ch	• 3D blocks, NFC blocks, Touch blocks, Motor block
	• ADC 1ch	• Shape block
Display	• White LED chip	• 3D blocks, Shape blocks
RF	<ul style="list-style-type: none"> <li>• 13.56MHz</li> <li>• ISO/IEC 14443 A/B</li> <li>• ISO/IEC 15693</li> <li>• ISO/IEC 18092</li> </ul>	• NFC blocks
Antenna	• Loop antenna by PCB pattern	• NFC blocks
Motor	• 4.5Vdc/1.5rpm/Torque 250gcm/0.5W	• Motor block
Size	<ul style="list-style-type: none"> <li>• 47 X 47 X 33mm</li> <li>• 47 X 47 X 32mm</li> <li>• 47 X 47 X 62mm</li> </ul>	<ul style="list-style-type: none"> <li>• 3D blocks, Shape blocks</li> <li>• NFC blocks, Touch blocks</li> <li>• Motor blocks</li> </ul>
Weight	<ul style="list-style-type: none"> <li>• about 28g</li> <li>• about 38g</li> <li>• about 40g</li> <li>• about 81g</li> </ul>	<ul style="list-style-type: none"> <li>• Shape blocks</li> <li>• NFC blocks</li> <li>• 3D blocks, Touch blocks</li> <li>• Motor blocks</li> </ul>
Operating Temp.	• 0°C ~ +50°C	• All



## FCC REGISTRATION INFORMATION

### ■ FCC REQUIREMENTS PART 15

Caution: Any changes or modifications in construction of this device which are not expressly approved by the manufacturer for compliance could void the user's authority to operate the equipment.

NOTE: This device complies with **Part 15 of the FCC Rules.**

**Operation is subject to the following two conditions;**

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.