

·Clever Blocks·



1 Features

1 Purpose

Off the Monitor

No need for smart device, children can learn how to code directly and visually with physical blocks.

Stimulate Senses

Stimulate the visual sense with various colors and learn the basic programming by one's own hands with touching the blocks.

Tangible

Change the complex programming languages into the simple physical blocks to help children have interest in programming.



1 Purpose

Challenging

Make children get used to repeating challenge and experiment.

Intuitive

As being able to see the result of programming immediately, Programming becomes easy and fun.

Limitless

Everyone can code in various circumstances such as no computer and internet connection.

1 Point

Easy to debug

Easy to program and debug using Step button, running the program one block by one block.

Memory blocks

No worries to make long program! Memory blocks can remember the blocks and be the part of the other program.

Wireless

No need to charge and free-wires. It Works with AAA batteries and bluetooth.

Touchable

It helps the children who have visual disturbance learn to code.

2 CleverBlocks

2 Components

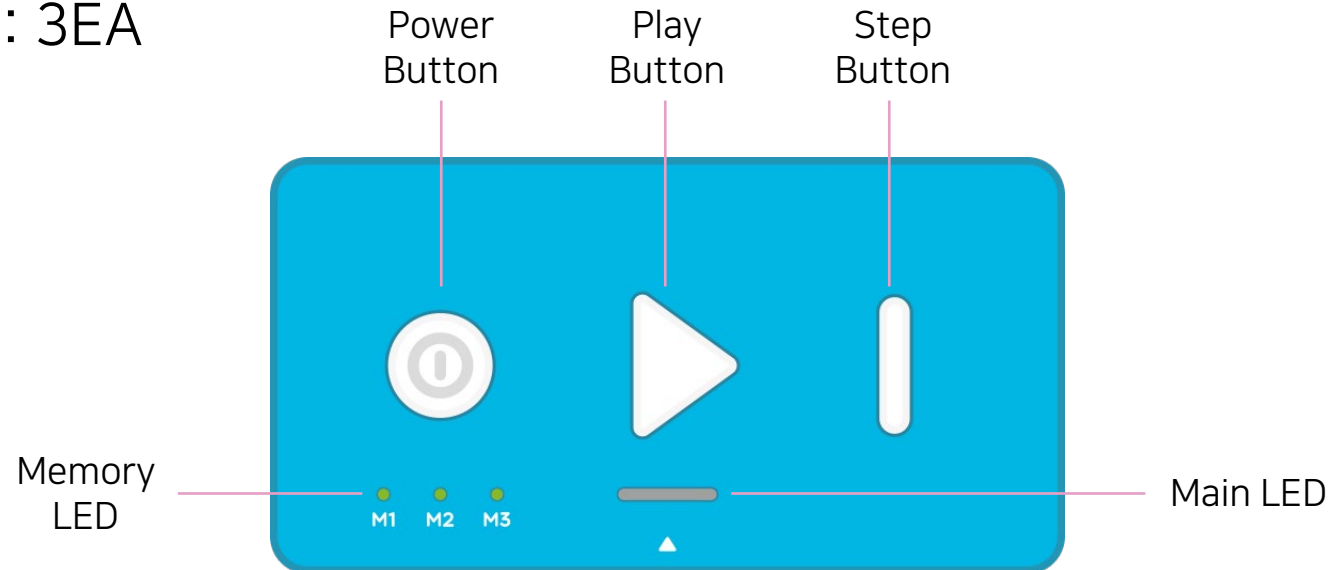
Starter pack for Dash

Blocks		EA	Blocks		EA
Main		1	Move	Forward / Backward	3
End		1	Rotate	Left / Right	2
Device	Dash	1	Variable 1	Distance / Times	4
Repeat Start		1	Variable 2	Degree	2
Repeat End		1	Memory	M1/M2/M3	3

2 Blocks

Main block

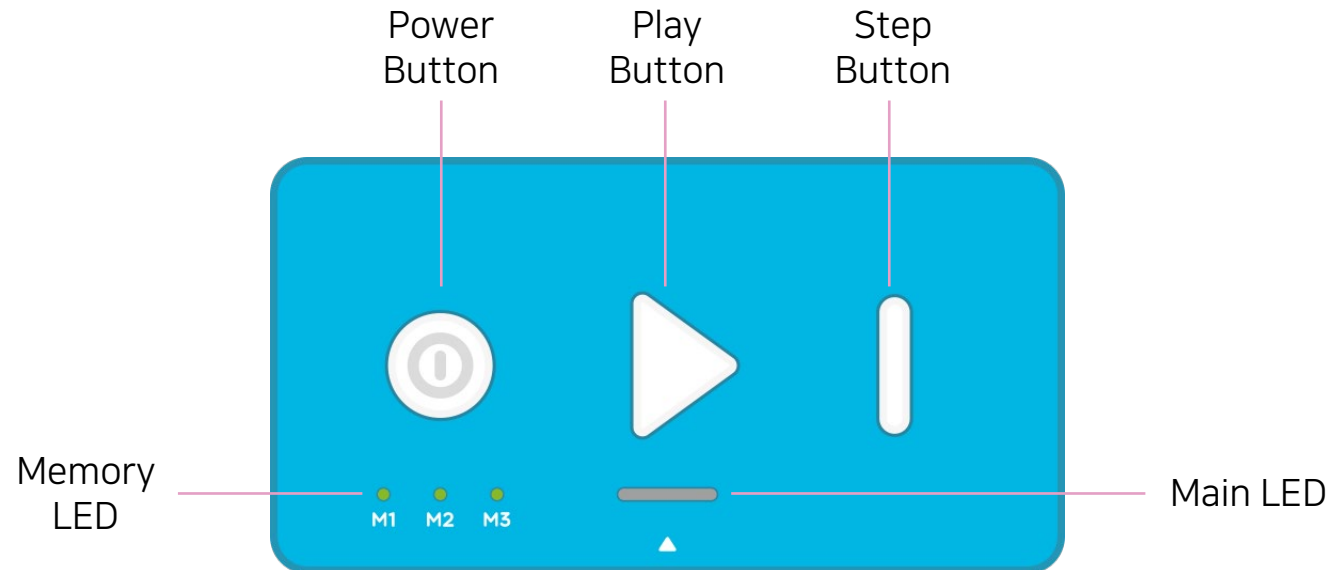
- Power: Micro USB(DC 5V/1A) or AAA batteries
- Main LED: RGB 1EA
- Memory LED: 3EA



2 Blocks

Main block

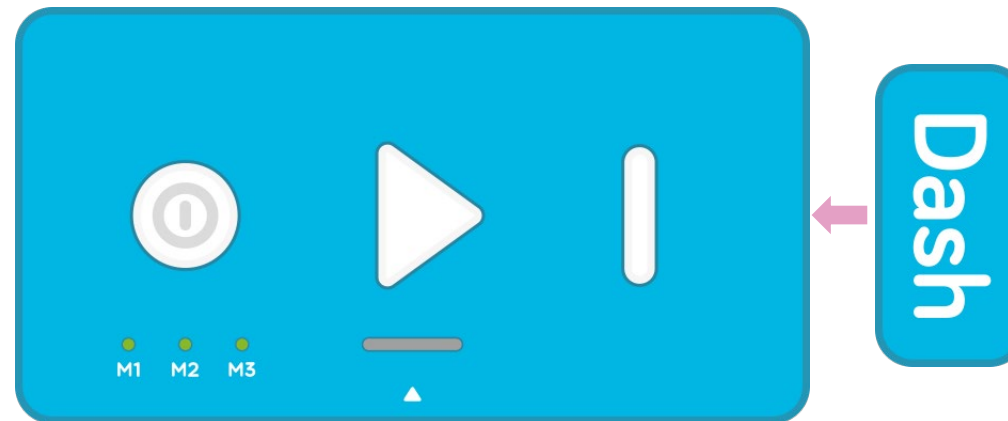
- Play button: Run the whole program.
- Step button: Run each block one by one.



2 Blocks

Device block

- Attach to the right side of the Main block.
- Device settings and connection



2 Blocks

End block

- Attach to the end of the program.
- Necessary to do the play and step.

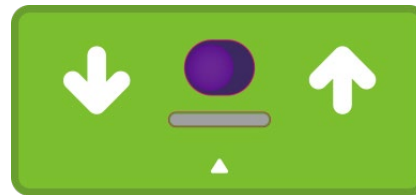


2 Blocks

Move block

- Make device move forward/backward.
- Set direction by moving the switch.

Backward



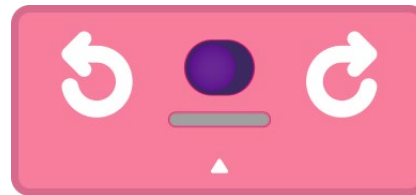
Forward

2 Blocks

Rotate block

- Make device turn left/right.
- Set direction by moving the switch.

Turn left



Turn right

2 Blocks

Repeat start/end block

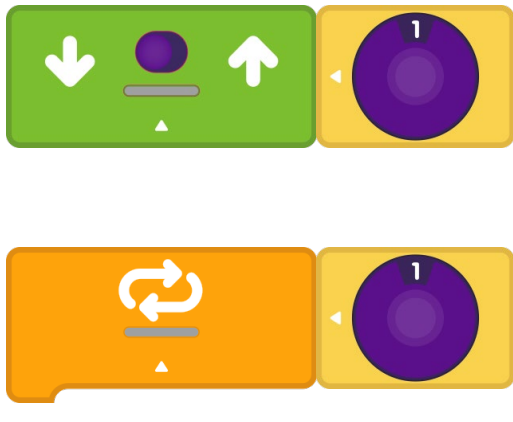
- Repeat the blocks are between the start and the end blocks.
- Set the number of times with function block.



2 Blocks

Variable block(number/distance)

- Set the number of times or distance.
- Attach to the move block or repeat start block.



The image shows two Scratch variable blocks. The top block is a green 'distance' block with a purple circle and a yellow '1' icon. The bottom block is an orange 'repeat' block with a white circular arrow icon and a purple circle with a yellow '1' icon. Both blocks are connected to a table of values.

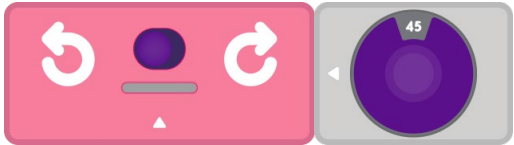
1	2	3	4	5	6	7	8	R
10cm	20cm	30cm	40cm	50cm	60cm	70cm	80cm	random

1	2	3	4	5	6	7	8	R
once	twice	3 times	4 times	5 times	6 times	7 times	8 times	random

2 Blocks

Variable block(degree)

- Set the number of times or distance.
- Attach to the rotate.



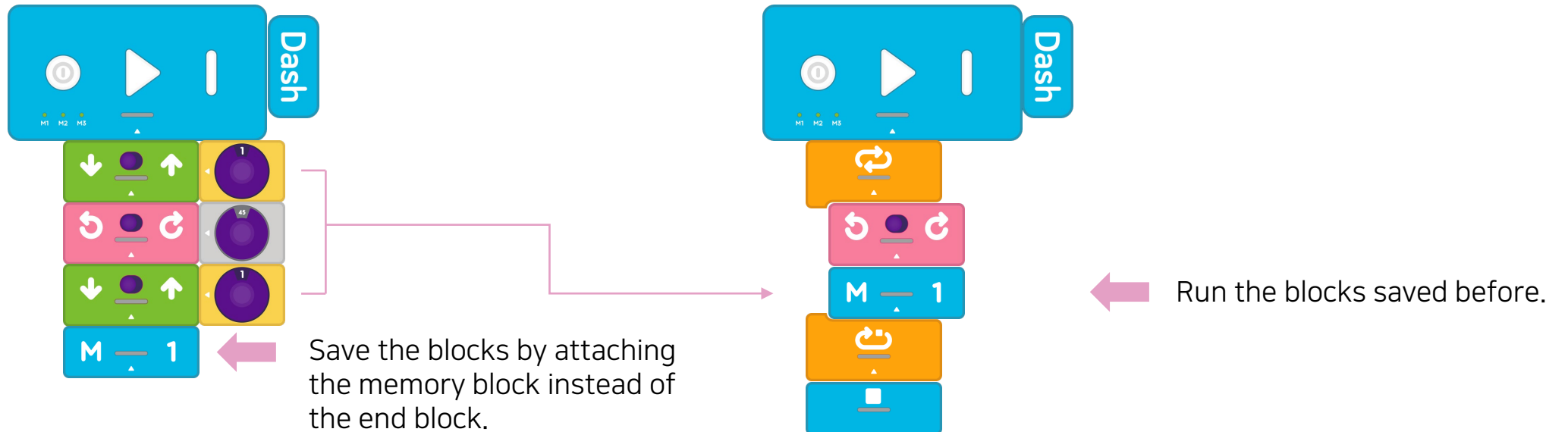
The image shows a Scratch variable block for rotation. It consists of a pink block with a left arrow, a slider, and a right arrow, and a grey block with a circular dial showing 45 degrees.

1	2	3	4	5	6	7	8	R
15°	30°	45°	60°	90°	120°	180°	360°	random

2 Blocks

Memory block

- Remember the sequence of the blocks and call to reuse them.
- Solution to the limited number of the blocks.

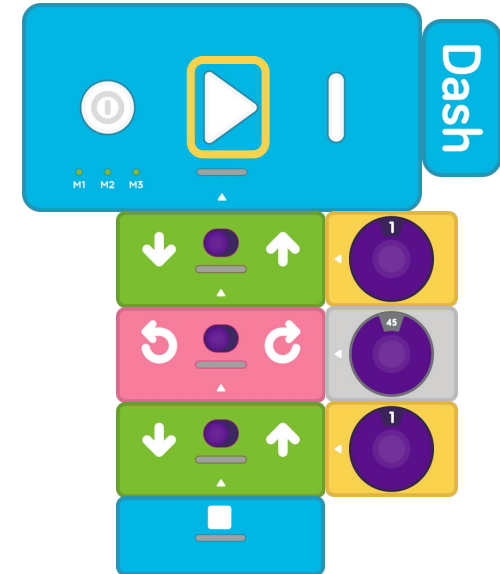


3 Playing

3 Playing

Playing Order

- Make the program with CleverBlocks.
- Push the power button on the Main block.
- Turn on the device you want to connect to.
- Push the Play button.
- Device will move through the program you made.



3 Playing

Step and Debug

- Connect CleverBlocks to the device.
- Push the Step button.
- Program plays the blocks one by one.
- Easy to find the error!

