

[아두이노 시뮬레이션 코딩]

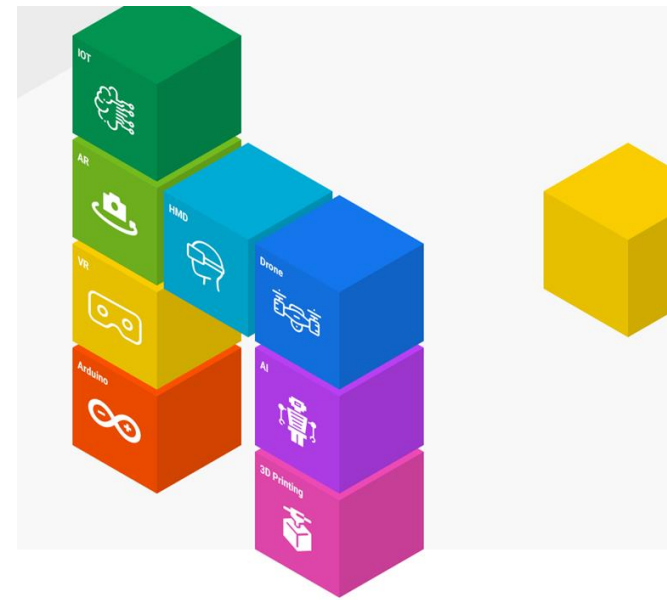
로봇 조종기 만들기



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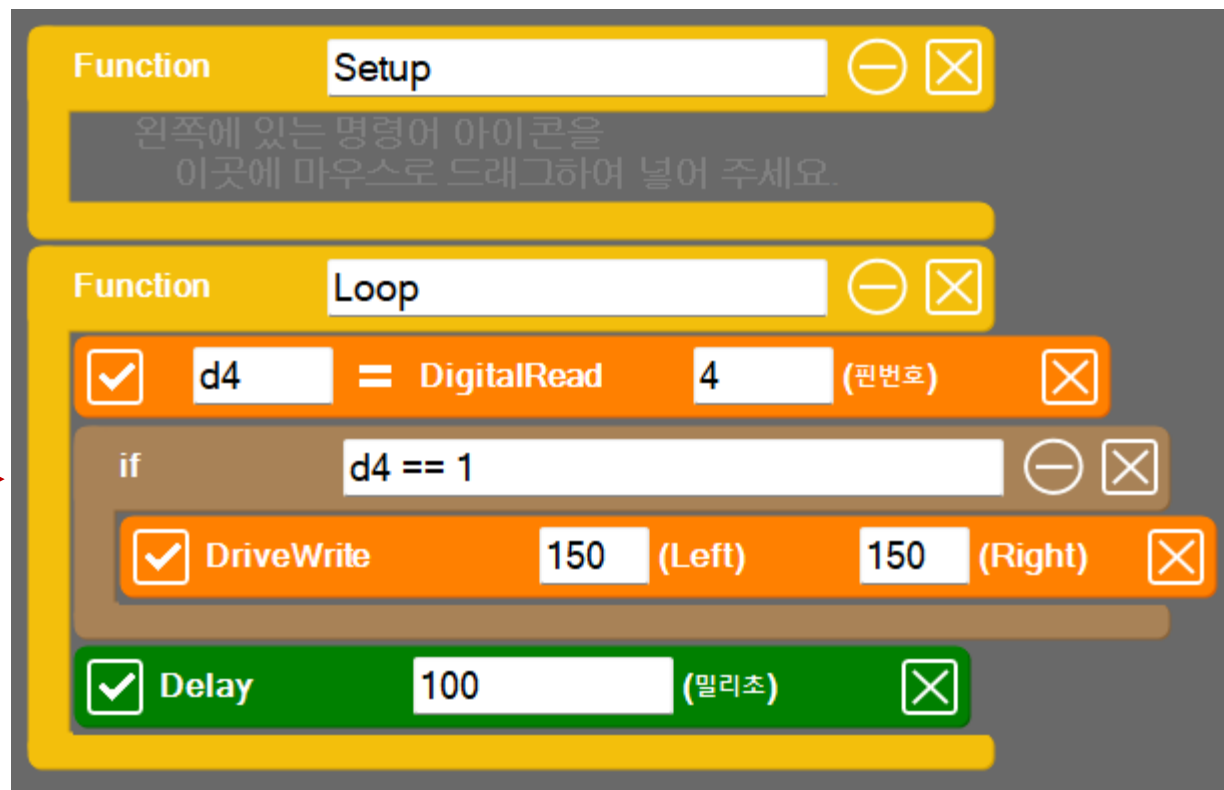
버튼으로 로봇 조종하기



로봇을 전진시키는 기능



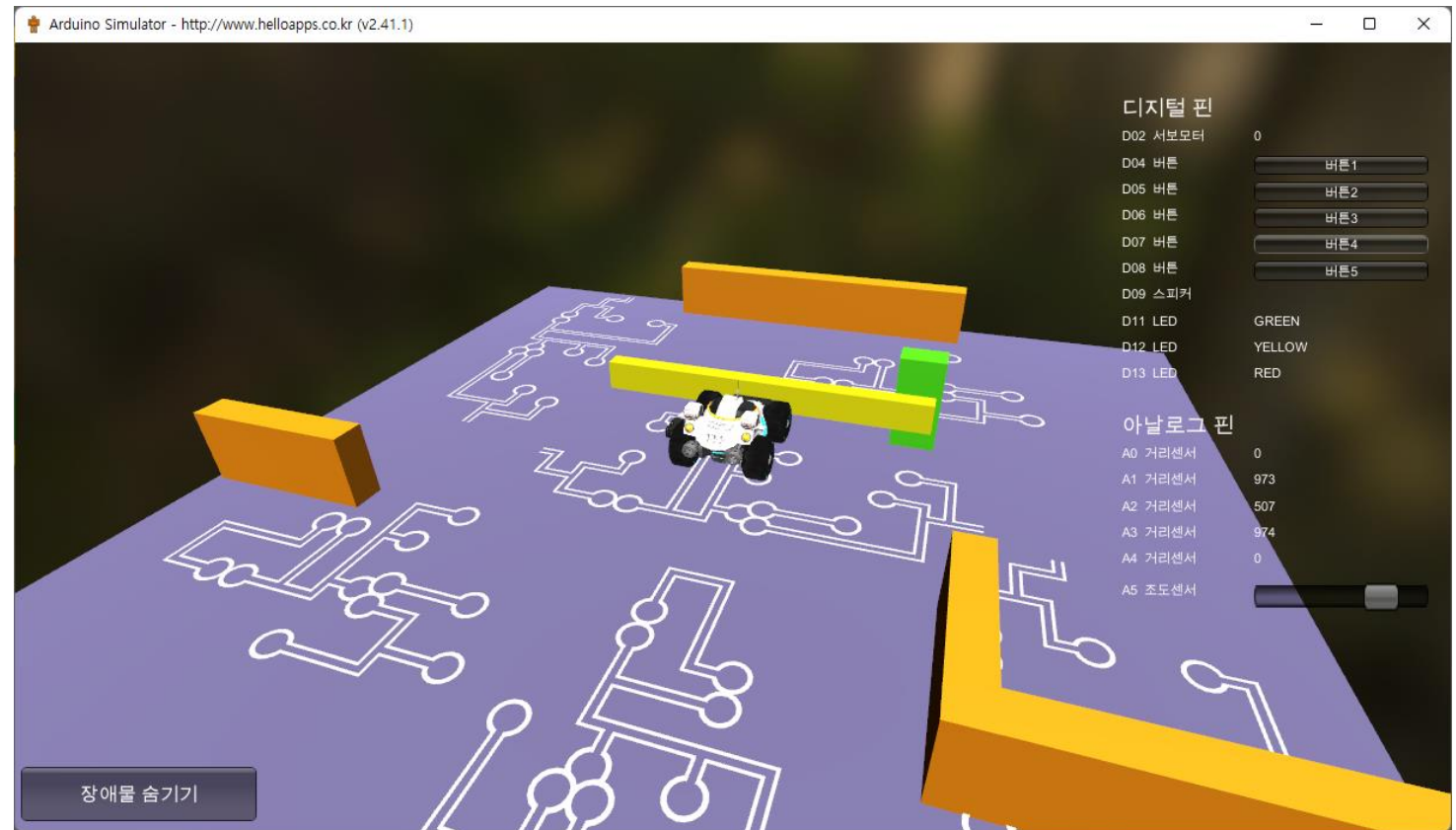
4번 핀의 버튼으로
로봇을 전진시키는
기능을 구현합니다.



로봇을 전진시키는 기능



4번 핀의 버튼으로
로봇을 전진시키는
기능을 구현합니다.



로봇을 정지시키는 기능



5번 핀의 버튼으로
로봇을 정지시키는
기능을 구현합니다.

The code block is a yellow 'Function' block titled 'Loop'. It contains the following blocks in order:

- Two orange 'DigitalRead' blocks: the first reads pin 'd4' and the second reads pin 'd5'. Both have a checkmark and a close button.
- An 'if' block with the condition 'd4 == 1'. Inside it is an orange 'DriveWrite' block with values '150' for both '(Left)' and '(Right)', and a close button.
- Another 'if' block with the condition 'd5 == 1'. Inside it is an orange 'DriveWrite' block with values '0' for both '(Left)' and '(Right)', and a close button.
- A green 'Delay' block with the value '100' and the unit '(밀리초)', with a checkmark and a close button.

로봇을 후진시키는 기능

6번 핀의 버튼으로
로봇을 후진시키는
기능을 구현합니다.

The image shows a code block titled "Function Loop" with a yellow border. It contains several blocks for digital pin reads and motor control. The first three blocks are "DigitalRead" blocks for pins d4, d5, and d6, each with a checkmark and a pin number (4, 5, 6) and a label "(핀번호)". Below these are three "if" blocks. The first "if" block is "if d4 == 1" and contains a "DriveWrite" block with values 150 (Left) and 150 (Right). The second "if" block is "if d5 == 1" and contains a "DriveWrite" block with values 0 (Left) and 0 (Right). The third "if" block is "if d6 == 1" and contains a "DriveWrite" block with values -150 (Left) and -150 (Right). At the bottom of the loop is a "Delay" block with a value of 100 and a label "(밀리초)". A red arrow points from the text box on the left to the "if d6 == 1" block.

```
Function Loop
  [✓] d4 = DigitalRead 4 (핀번호)
  [✓] d5 = DigitalRead 5 (핀번호)
  [✓] d6 = DigitalRead 6 (핀번호)
  if d4 == 1
    [✓] DriveWrite 150 (Left) 150 (Right)
  if d5 == 1
    [✓] DriveWrite 0 (Left) 0 (Right)
  if d6 == 1
    [✓] DriveWrite -150 (Left) -150 (Right)
  [✓] Delay 100 (밀리초)
```

좌회전 기능

7번 핀의 버튼으로
로봇을 좌회전시키는
기능을 구현합니다.

Function Loop

- ☒ d4 = DigitalRead 4 (핀번호)
- ☒ d5 = DigitalRead 5 (핀번호)
- ☒ d6 = DigitalRead 6 (핀번호)
- ☒ d7 = DigitalRead 7 (핀번호)

if d4 == 1

- ☒ DriveWrite 150 (Left) 150 (Right)

if d5 == 1

- ☒ DriveWrite 0 (Left) 0 (Right)

if d6 == 1

- ☒ DriveWrite -150 (Left) -150 (Right)

if d7 == 1

- ☒ DriveWrite -150 (Left) 150 (Right)

☒ Delay 100 (밀리초)

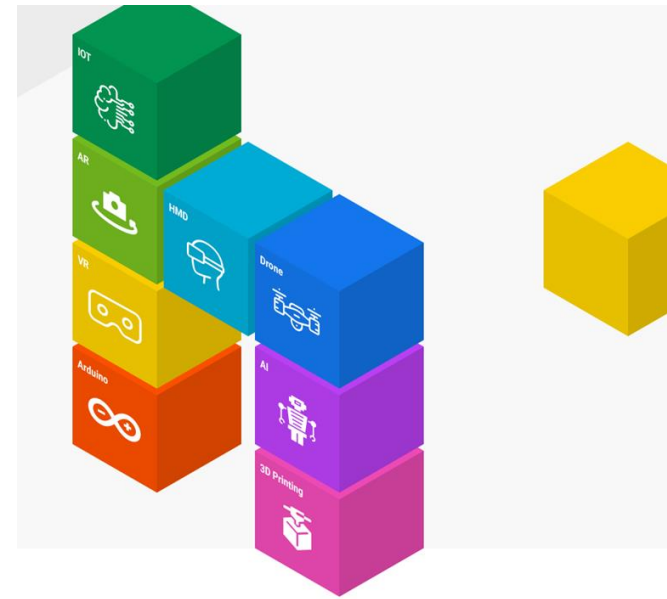
우회전 기능

8번 핀의 버튼으로
로봇을 우회전시키는
기능을 구현합니다.

The image shows a code editor interface with a yellow background. At the top, there is a 'Function' dropdown set to 'Loop'. Below this, there are five 'if' blocks, each corresponding to a digital pin (d4, d5, d6, d7, d8). Each 'if' block contains a 'DriveWrite' block. The 'DriveWrite' blocks have two numerical inputs for 'Left' and 'Right' movement. The values are: d4 (150, 150), d5 (0, 0), d6 (-150, -150), d7 (-150, 150), and d8 (150, -150). The 'd8' block has the right movement value (-150) highlighted in blue. At the bottom of the loop, there is a 'Delay' block set to 100 milliseconds. Each block has a checkmark on the left and a close button (X) on the right. The text '(핀번호)' is visible next to the pin numbers in the 'if' conditions.

Pin	Condition	Left Value	Right Value
d4	d4 == 1	150	150
d5	d5 == 1	0	0
d6	d6 == 1	-150	-150
d7	d7 == 1	-150	150
d8	d8 == 1	150	-150

로봇 동작에 LED 연동하기



전진시 초록 LED 켜기

<input checked="" type="checkbox"/>	DigitalWrite	11	(핀번호)	HIGH	(값)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	DigitalWrite	12	(핀번호)	LOW	(값)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	DigitalWrite	13	(핀번호)	LOW	(값)	<input type="checkbox"/>

전진시 11번 LED만
켜지도록 하는
기능을 추가합니다.

Function	Loop			
<input checked="" type="checkbox"/>	d4	=	DigitalRead	4 (핀번호)
<input checked="" type="checkbox"/>	d5	=	DigitalRead	5 (핀번호)
<input checked="" type="checkbox"/>	d6	=	DigitalRead	6 (핀번호)
<input checked="" type="checkbox"/>	d7	=	DigitalRead	7 (핀번호)
<input checked="" type="checkbox"/>	d8	=	DigitalRead	8 (핀번호)
if d4 == 1				
<input checked="" type="checkbox"/>	DriveWrite	150 (Left)	150 (Right)	<input type="checkbox"/>
if d5 == 1				
<input checked="" type="checkbox"/>	DriveWrite	0 (Left)	0 (Right)	<input type="checkbox"/>
if d6 == 1				
<input checked="" type="checkbox"/>	DriveWrite	-150 (Left)	-150 (Right)	<input type="checkbox"/>
if d7 == 1				
<input checked="" type="checkbox"/>	DriveWrite	-150 (Left)	150 (Right)	<input type="checkbox"/>
if d8 == 1				
<input checked="" type="checkbox"/>	DriveWrite	150 (Left)	-150 (Right)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Delay	100 (밀리초)		<input type="checkbox"/>

정지시 빨강 LED 켜기

<input checked="" type="checkbox"/>	DigitalWrite	11	(핀번호)	LOW	(값)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	DigitalWrite	12	(핀번호)	LOW	(값)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	DigitalWrite	13	(핀번호)	HIGH	(값)	<input type="checkbox"/>

정지시 13번 LED만
켜지도록 하는
기능을 추가합니다.

Function		Loop		<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	d4	=	DigitalRead	4	(핀번호)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	d5	=	DigitalRead	5	(핀번호)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	d6	=	DigitalRead	6	(핀번호)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	d7	=	DigitalRead	7	(핀번호)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	d8	=	DigitalRead	8	(핀번호)	<input type="checkbox"/>
if d4 == 1 <input type="checkbox"/>						
<input checked="" type="checkbox"/>	DriveWrite	150	(Left)	150	(Right)	<input type="checkbox"/>
if d5 == 1 <input type="checkbox"/>						
<input checked="" type="checkbox"/>	DriveWrite	0	(Left)	0	(Right)	<input type="checkbox"/>
if d6 == 1 <input type="checkbox"/>						
<input checked="" type="checkbox"/>	DriveWrite	-150	(Left)	-150	(Right)	<input type="checkbox"/>
if d7 == 1 <input type="checkbox"/>						
<input checked="" type="checkbox"/>	DriveWrite	-150	(Left)	150	(Right)	<input type="checkbox"/>
if d8 == 1 <input type="checkbox"/>						
<input checked="" type="checkbox"/>	DriveWrite	150	(Left)	-150	(Right)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Delay	100	(밀리초)	<input type="checkbox"/>		

후진시 노랑 LED 켜기

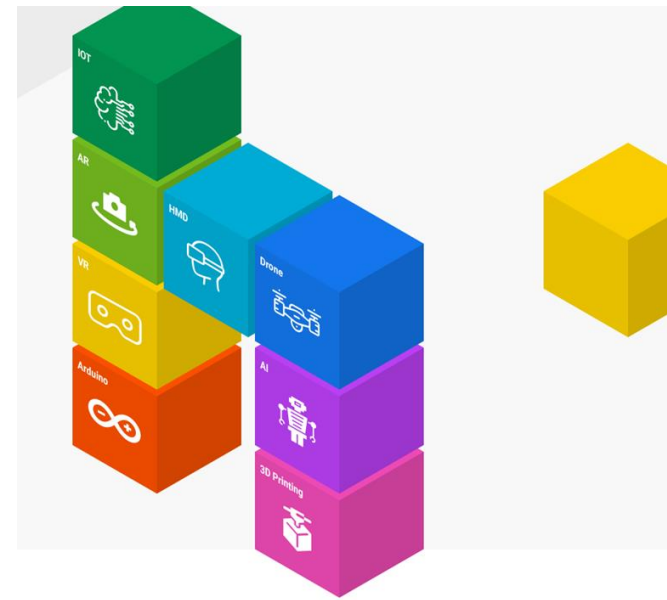
<input checked="" type="checkbox"/>	DigitalWrite	11	(핀번호)	LOW	(값)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	DigitalWrite	12	(핀번호)	HIGH	(값)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	DigitalWrite	13	(핀번호)	LOW	(값)	<input type="checkbox"/>

후진시 12번 LED만
켜지도록 하는
기능을 추가합니다.

Function Loop

<input checked="" type="checkbox"/>	d4	=	DigitalRead	4	(핀번호)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	d5	=	DigitalRead	5	(핀번호)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	d6	=	DigitalRead	6	(핀번호)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	d7	=	DigitalRead	7	(핀번호)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	d8	=	DigitalRead	8	(핀번호)	<input type="checkbox"/>
if d4 == 1						
<input checked="" type="checkbox"/>	DriveWrite	150	(Left)	150	(Right)	<input type="checkbox"/>
if d5 == 1						
<input checked="" type="checkbox"/>	DriveWrite	0	(Left)	0	(Right)	<input type="checkbox"/>
if d6 == 1						
<input checked="" type="checkbox"/>	DriveWrite	-150	(Left)	-150	(Right)	<input type="checkbox"/>
if d7 == 1						
<input checked="" type="checkbox"/>	DriveWrite	-150	(Left)	150	(Right)	<input type="checkbox"/>
if d8 == 1						
<input checked="" type="checkbox"/>	DriveWrite	150	(Left)	-150	(Right)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Delay	100	(밀리초)	<input type="checkbox"/>		

전진시 전체 LED 켜기



전진시 전체 LED 켜기

<input checked="" type="checkbox"/>	DigitalWrite	11 (핀번호)	HIGH (값)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	DigitalWrite	12 (핀번호)	HIGH (값)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	DigitalWrite	13 (핀번호)	HIGH (값)	<input type="checkbox"/>

Function Loop

<input checked="" type="checkbox"/>	d4	=	DigitalRead	4 (핀번호)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	d5	=	DigitalRead	5 (핀번호)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	d6	=	DigitalRead	6 (핀번호)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	d7	=	DigitalRead	7 (핀번호)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	d8	=	DigitalRead	8 (핀번호)	<input type="checkbox"/>

if d4 == 1

<input checked="" type="checkbox"/>	DriveWrite	150 (Left)	150 (Right)	<input type="checkbox"/>
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if d5 == 1

<input checked="" type="checkbox"/>	DriveWrite	0 (Left)	0 (Right)	<input type="checkbox"/>
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if d6 == 1

<input checked="" type="checkbox"/>	DriveWrite	-150 (Left)	-150 (Right)	<input type="checkbox"/>
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if d7 == 1

<input checked="" type="checkbox"/>	DriveWrite	-150 (Left)	150 (Right)	<input type="checkbox"/>
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if d8 == 1

<input checked="" type="checkbox"/>	DriveWrite	150 (Left)	-150 (Right)	<input type="checkbox"/>
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☒ Delay 100 (밀리초) ☐