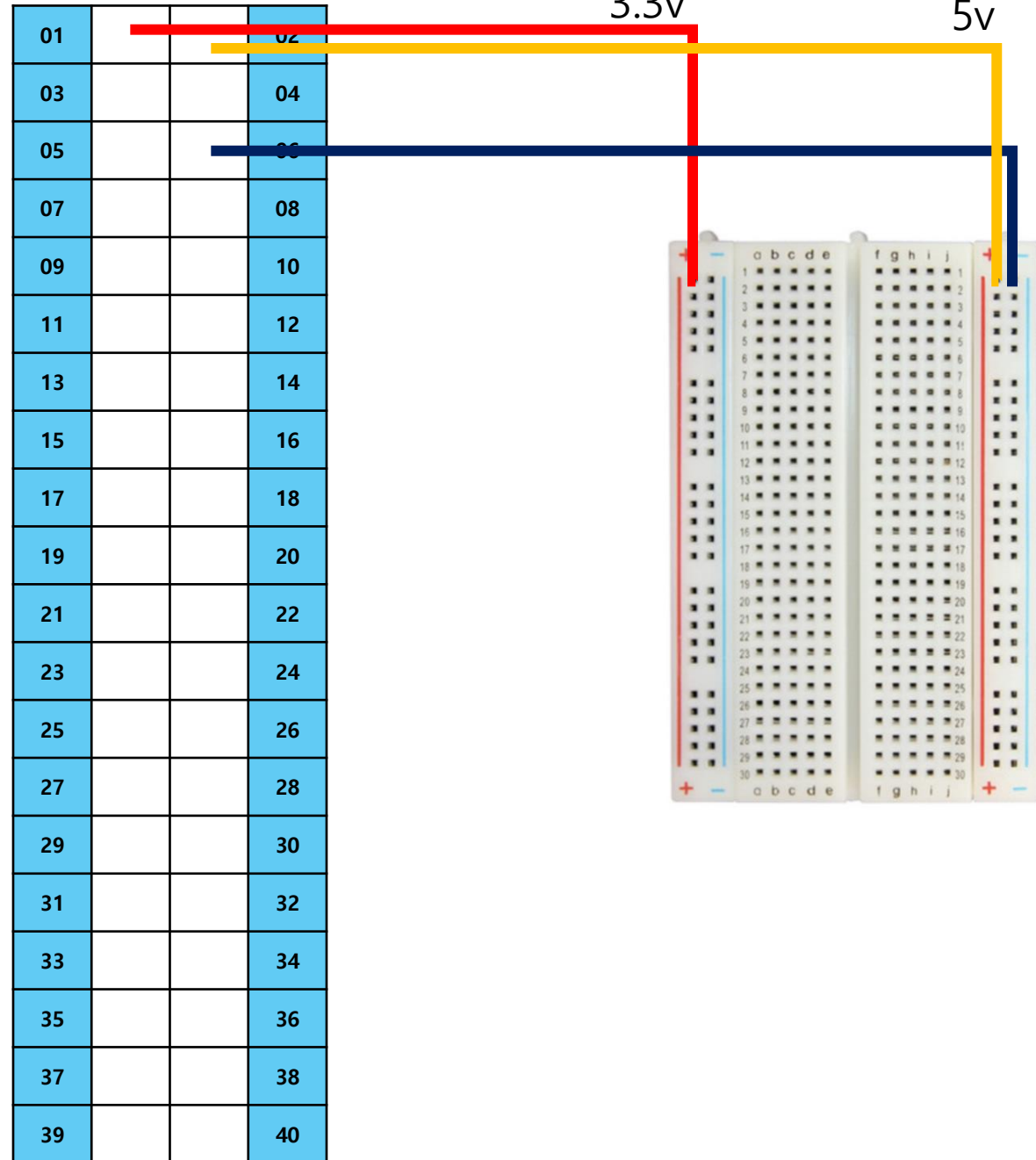


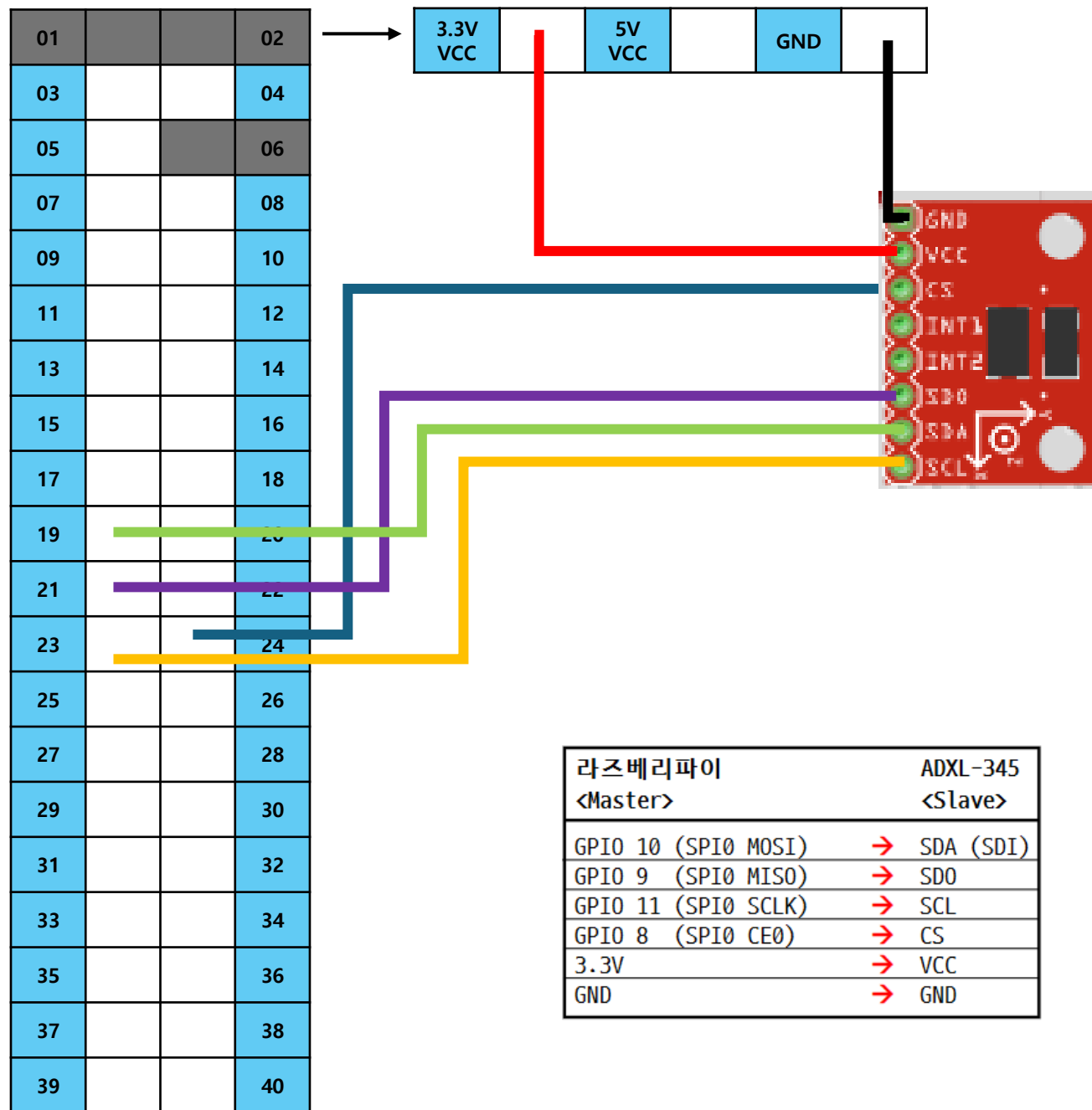
# 1. Setting

PIN	NAME		NAME	PIN
01	3.3V DC Power	● ●	5V DC Power	02
03	GPIO02 (SDA1, I <sup>2</sup> C)	● ●	5V DC Power	04
05	GPIO03 (SDL1, I <sup>2</sup> C)	● ●	Ground	06
07	GPIO04 (GPCLK0)	● ●	GPIO14 (TXD0, UART)	08
09	Ground	● ●	GPIO15 (RXD0, UART)	10
11	GPIO17	● ●	GPIO18(PWM0)	12
13	GPIO27	● ●	Ground	14
15	GPIO22	● ●	GPIO23	16
17	3.3V DC Power	● ●	GPIO24	18
19	GPIO10 (SP10_MOSI)	● ●	Ground	20
21	GPIO09 (SP10_MISO)	● ●	GPIO25	22
23	GPIO11 (SP10_CLK)	● ●	GPIO08 (SPI0_CE0_N)	24
25	Ground	● ●	GPIO07 (SPI0_CE1_N)	26
27	GPIO00 (SDA0, I <sup>2</sup> C)	● ●	GPIO07 (SCL0, I <sup>2</sup> C)	28
29	GPIO05	● ●	Ground	30
31	GPIO06	● ●	GPIO12 (PWM0)	32
33	GPIO13 (PWM1)	● ●	Ground	34
35	GPIO19	● ●	GPIO16	36
37	GPIO26	● ●	GPIO20	38
39	Ground	● ●	GPIO21	40



## 2. 가속도 센서

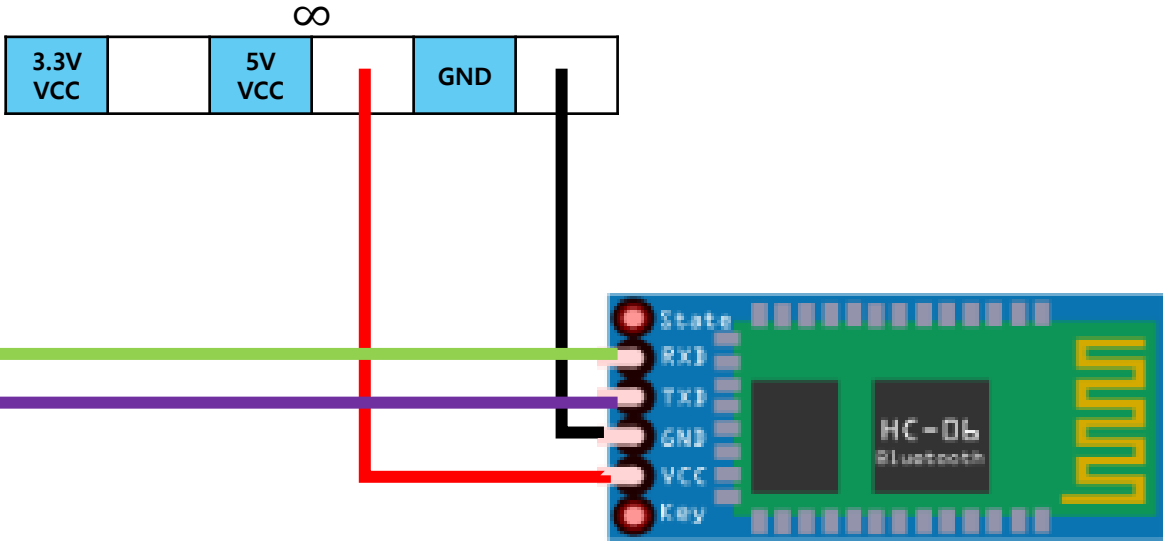
PIN	NAME		NAME	PIN
01	3.3V DC Power	● ●	5V DC Power	02
03	GPIO02 (SDA1, I <sup>2</sup> C)	● ●	5V DC Power	04
05	GPIO03 (SDL1, I <sup>2</sup> C)	● ●	Ground	06
07	GPIO04 (GPCLK0)	● ●	GPIO14 (TXD0, UART)	08
09	Ground	● ●	GPIO15 (RXD0, UART)	10
11	GPIO17	● ●	GPIO18(PWM0)	12
13	GPIO27	● ●	Ground	14
15	GPIO22	● ●	GPIO23	16
17	3.3V DC Power	● ●	GPIO24	18
19	GPIO10 (SPI0_MOSI)	● ●	Ground	20
21	GPIO09 (SPI0_MISO)	● ●	GPIO25	22
23	GPIO11 (SPI0_CLK)	● ●	GPIO08 (SPI0_CE0_N)	24
25	Ground	● ●	GPIO07 (SPI0_CE1_N)	26
27	GPIO00 (SDA0, I <sup>2</sup> C)	● ●	GPIO07 (SCL0, I <sup>2</sup> C)	28
29	GPIO05	● ●	Ground	30
31	GPIO06	● ●	GPIO12 (PWM0)	32
33	GPIO13 (PWM1)	● ●	Ground	34
35	GPIO19	● ●	GPIO16	36
37	GPIO26	● ●	GPIO20	38
39	Ground	● ●	GPIO21	40



3. 블루투스

PIN	NAME		NAME	PIN
01	3.3V DC Power	● ●	5V DC Power	02
03	GPIO02 (SDA1, I <sup>2</sup> C)	● ●	5V DC Power	04
05	GPIO03 (SDL1, I <sup>2</sup> C)	● ●	Ground	06
07	GPIO04 (GPCLK0)	● ●	GPIO14 (TXD0, UART)	08
09	Ground	● ●	GPIO15 (RXD0, UART)	10
11	GPIO17	● ●	GPIO18(PWM0)	12
13	GPIO27	● ●	Ground	14
15	GPIO22	● ●	GPIO23	16
17	3.3V DC Power	● ●	GPIO24	18
19	GPIO10 (SP10_MOSI)	● ●	Ground	20
21	GPIO09 (SP10_MISO)	● ●	GPIO25	22
23	GPIO11 (SP10_CLK)	● ●	GPIO08 (SPI0_CE0_N)	24
25	Ground	● ●	GPIO07 (SPI0_CE1_N)	26
27	GPIO00 (SDA0, I <sup>2</sup> C)	● ●	GPIO07 (SCL0, I <sup>2</sup> C)	28
29	GPIO05	● ●	Ground	30
31	GPIO06	● ●	GPIO12 (PWM0)	32
33	GPIO13 (PWM1)	● ●	Ground	34
35	GPIO19	● ●	GPIO16	36
37	GPIO26	● ●	GPIO20	38
39	Ground	● ●	GPIO21	40

01			02
03			04
05			06
07			08
09			10
11			12
13			14
15			16
17			18
19			20
21			22
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27			28
29			30
31			32
33			34
35			36
37			38
39			40



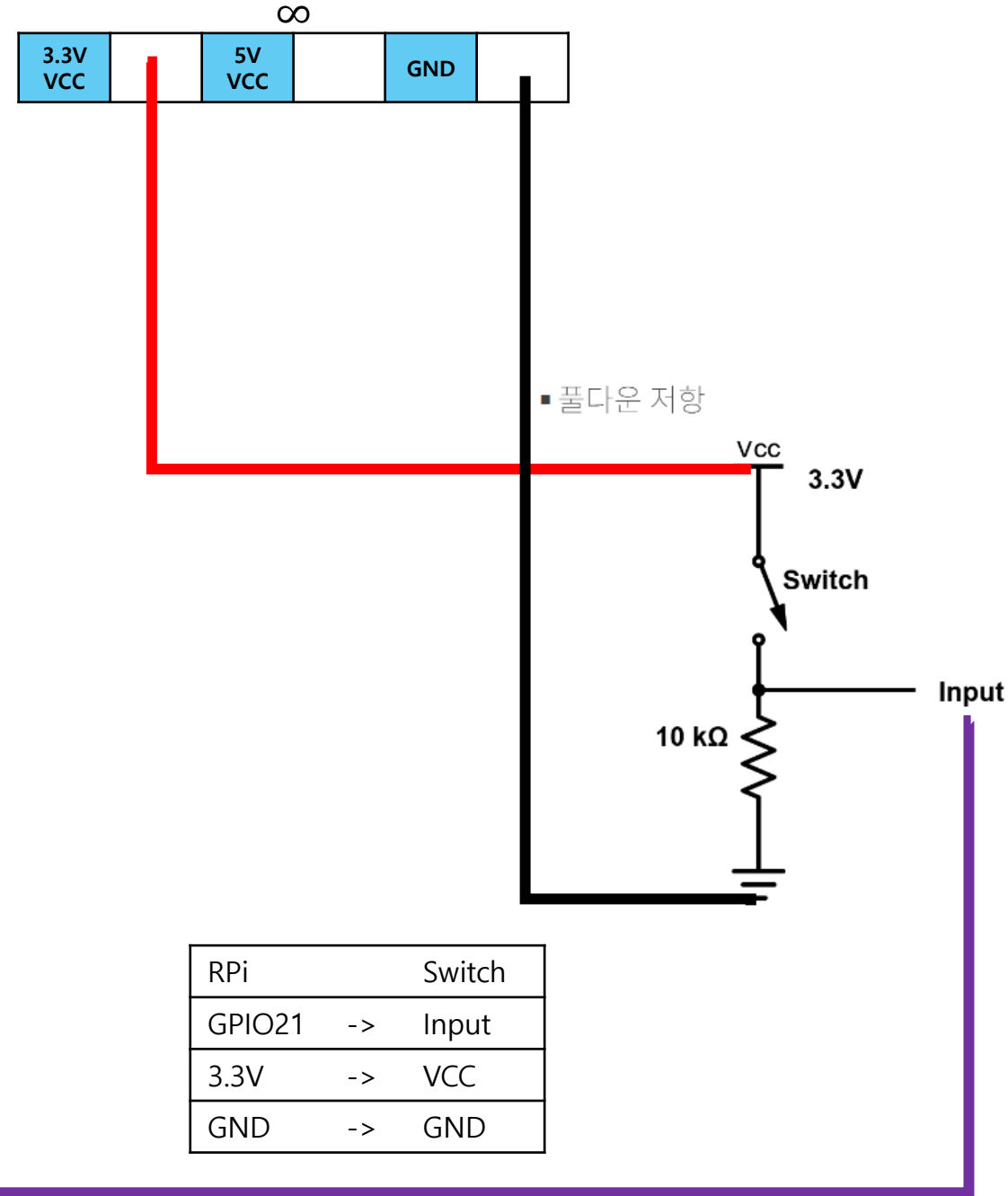
RPi4B	BT module
GPIO0 (TXD2)	→ RXD
GPIO1 (RXD2)	→ TXD
5 V	→ VCC
GND	→ GND

RPi5	BT module
GPIO0 (TXD1)	→ RXD
GPIO1 (RXD1)	→ TXD
5 V	→ VCC
GND	→ GND

## 4. 스위치

PIN	NAME		NAME	PIN
01	3.3V DC Power	● ●	5V DC Power	02
03	GPIO02 (SDA1, I <sup>2</sup> C)	● ●	5V DC Power	04
05	GPIO03 (SDL1, I <sup>2</sup> C)	● ●	Ground	06
07	GPIO04 (GPCLK0)	● ●	GPIO14 (TXD0, UART)	08
09	Ground	● ●	GPIO15 (RXD0, UART)	10
11	GPIO17	● ●	GPIO18(PWM0)	12
13	GPIO27	● ●	Ground	14
15	GPIO22	● ●	GPIO23	16
17	3.3V DC Power	● ●	GPIO24	18
19	GPIO10 (SP10_MOSI)	● ●	Ground	20
21	GPIO09 (SP10_MISO)	● ●	GPIO25	22
23	GPIO11 (SP10_CLK)	● ●	GPIO08 (SPI0_CE0_N)	24
25	Ground	● ●	GPIO07 (SPI0_CE1_N)	26
27	GPIO00 (SDA0, I <sup>2</sup> C)	● ●	GPIO07 (SCL0, I <sup>2</sup> C)	28
29	GPIO05	● ●	Ground	30
31	GPIO06	● ●	GPIO12 (PWM0)	32
33	GPIO13 (PWM1)	● ●	Ground	34
35	GPIO19	● ●	GPIO16	36
37	GPIO26	● ●	GPIO20	38
39	Ground	● ●	GPIO21	40

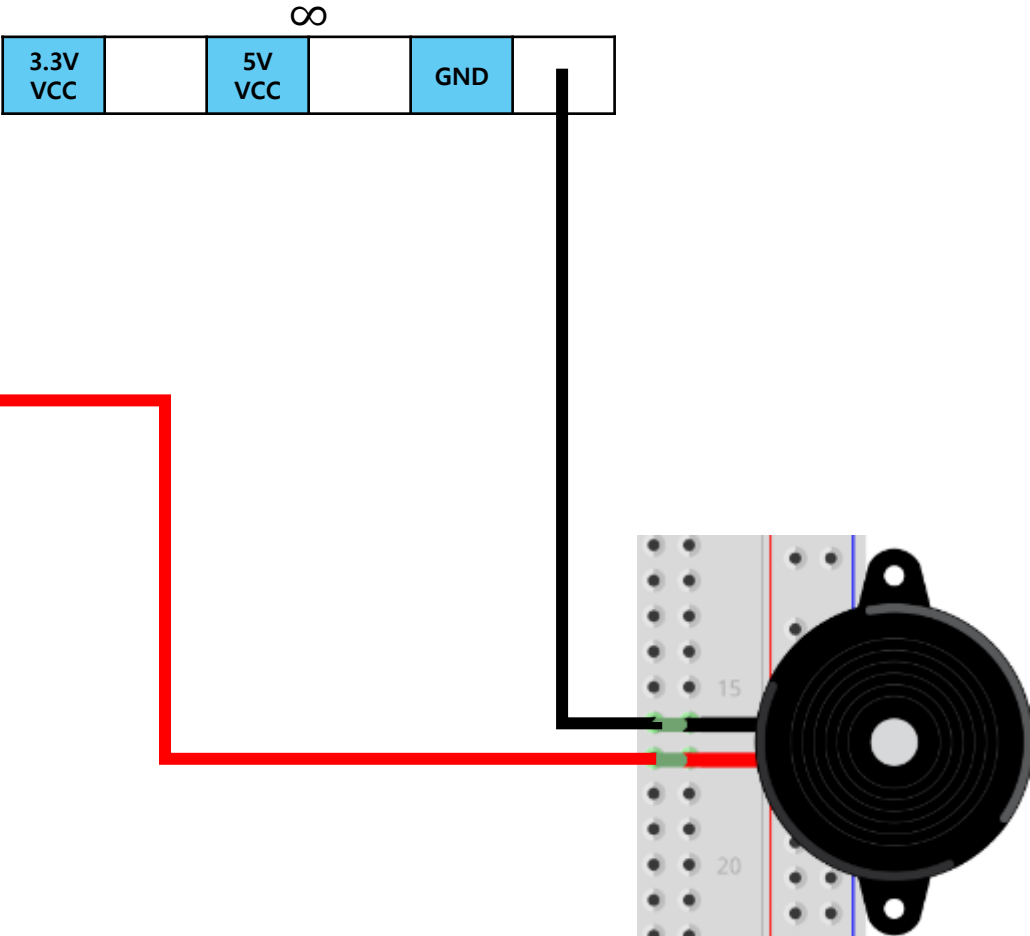
01			02
03			04
05			06
07			08
09			10
11			12
13			14
15			16
17			18
19			20
21			22
23			24
25			26
27			28
29			30
31			32
33			34
35			36
37			38
39			40



5. 소리부저(능동부저)

PIN	NAME		NAME	PIN
01	3.3V DC Power	● ●	5V DC Power	02
03	GPIO02 (SDA1, I <sup>2</sup> C)	● ●	5V DC Power	04
05	GPIO03 (SDL1, I <sup>2</sup> C)	● ●	Ground	06
07	GPIO04 (GPCLK0)	● ●	GPIO14 (TXD0, UART)	08
09	Ground	● ●	GPIO15 (RXD0, UART)	10
11	GPIO17	● ●	GPIO18(PWM0)	12
13	GPIO27	● ●	Ground	14
15	GPIO22	● ●	GPIO23	16
17	3.3V DC Power	● ●	GPIO24	18
19	GPIO10 (SP10_MOSI)	● ●	Ground	20
21	GPIO09 (SP10_MISO)	● ●	GPIO25	22
23	GPIO11 (SP10_CLK)	● ●	GPIO08 (SPI0_CE0_N)	24
25	Ground	● ●	GPIO07 (SPI0_CE1_N)	26
27	GPIO00 (SDA0, I <sup>2</sup> C)	● ●	GPIO07 (SCL0, I <sup>2</sup> C)	28
29	GPIO05	● ●	Ground	30
31	GPIO06	● ●	GPIO12 (PWM0)	32
33	GPIO13 (PWM1)	● ●	Ground	34
35	GPIO19	● ●	GPIO16	36
37	GPIO26	● ●	GPIO20	38
39	Ground	● ●	GPIO21	40

01			02
03			04
05			06
07			08
09			10
11			12
13			14
15			16
17			18
19			20
21			22
23			24
25			26
27			28
29			30
31			32
33			34
35			36
37			38
39			40

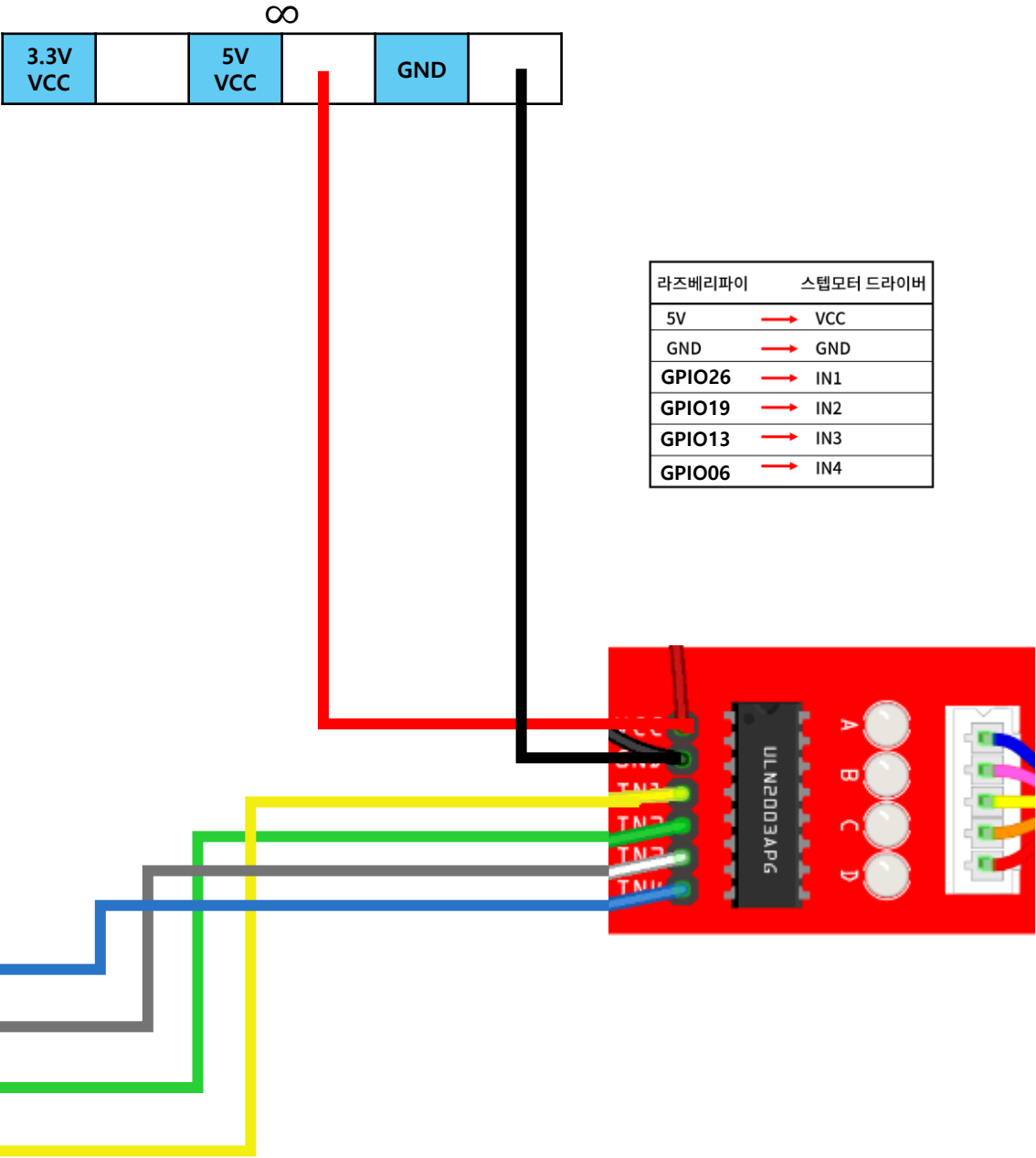


RPi		Sound
GPIO18	->	+
GND	->	-

6. DC모터(좌)

PIN	NAME		NAME	PIN
01	3.3V DC Power	● ●	5V DC Power	02
03	GPIO02 (SDA1, I <sup>2</sup> C)	● ●	5V DC Power	04
05	GPIO03 (SDL1, I <sup>2</sup> C)	● ●	Ground	06
07	GPIO04 (GPCLK0)	● ●	GPIO14 (TXD0, UART)	08
09	Ground	● ●	GPIO15 (RXD0, UART)	10
11	GPIO17	● ●	GPIO18(PWM0)	12
13	GPIO27	● ●	Ground	14
15	GPIO22	● ●	GPIO23	16
17	3.3V DC Power	● ●	GPIO24	18
19	GPIO10 (SP10_MOSI)	● ●	Ground	20
21	GPIO09 (SP10_MISO)	● ●	GPIO25	22
23	GPIO11 (SP10_CLK)	● ●	GPIO08 (SPI0_CE0_N)	24
25	Ground	● ●	GPIO07 (SPI0_CE1_N)	26
27	GPIO00 (SDA0, I <sup>2</sup> C)	● ●	GPIO07 (SCL0, I <sup>2</sup> C)	28
29	GPIO05	● ●	Ground	30
31	GPIO06	● ●	GPIO12 (PWM0)	32
33	GPIO13 (PWM1)	● ●	Ground	34
35	GPIO19	● ●	GPIO16	36
37	GPIO26	● ●	GPIO20	38
39	Ground	● ●	GPIO21	40

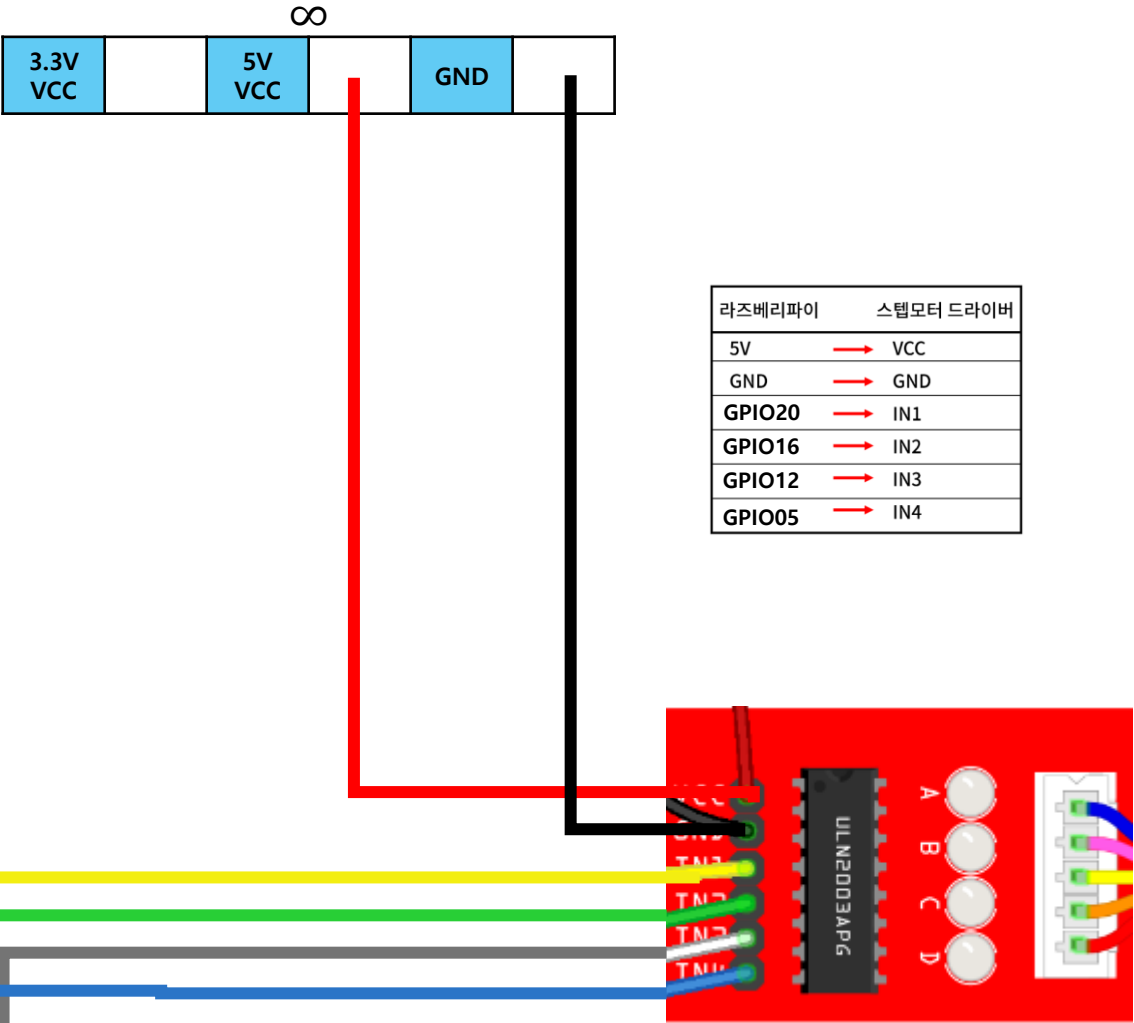
01			02
03			04
05			06
07			08
09			10
11			12
13			14
15			16
17			18
19			20
21			22
23			24
25			26
27			28
29			30
31			32
33			34
35			36
37			38
39			40



7. DC모터(우)

PIN	NAME		NAME	PIN
01	3.3V DC Power	● ●	5V DC Power	02
03	GPIO02 (SDA1, I <sup>2</sup> C)	● ●	5V DC Power	04
05	GPIO03 (SDL1, I <sup>2</sup> C)	● ●	Ground	06
07	GPIO04 (GPCLK0)	● ●	GPIO14 (TXD0, UART)	08
09	Ground	● ●	GPIO15 (RXD0, UART)	10
11	GPIO17	● ●	GPIO18(PWM0)	12
13	GPIO27	● ●	Ground	14
15	GPIO22	● ●	GPIO23	16
17	3.3V DC Power	● ●	GPIO24	18
19	GPIO10 (SP10_MOSI)	● ●	Ground	20
21	GPIO09 (SP10_MISO)	● ●	GPIO25	22
23	GPIO11 (SP10_CLK)	● ●	GPIO08 (SPI0_CE0_N)	24
25	Ground	● ●	GPIO07 (SPI0_CE1_N)	26
27	GPIO00 (SDA0, I <sup>2</sup> C)	● ●	GPIO07 (SCL0, I <sup>2</sup> C)	28
29	GPIO05	● ●	Ground	30
31	GPIO06	● ●	GPIO12 (PWM0)	32
33	GPIO13 (PWM1)	● ●	Ground	34
35	GPIO19	● ●	GPIO16	36
37	GPIO26	● ●	GPIO20	38
39	Ground	● ●	GPIO21	40

01			02
03			04
05			06
07			08
09			10
11			12
13			14
15			16
17			18
19			20
21			22
23			24
25			26
27			28
29			30
31			32
33			34
35			36
37			38
39			40



# 8. 초음파 거리감지 센서

PIN	NAME		NAME	PIN
01	3.3V DC Power	●	5V DC Power	02
03	GPIO02 (SDA1, I <sup>2</sup> C)	●	5V DC Power	04
05	GPIO03 (SDL1, I <sup>2</sup> C)	●	Ground	06
07	GPIO04 (GPCLK0)	●	GPIO14 (TXD0, UART)	08
09	Ground	●	GPIO15 (RXD0, UART)	10
11	GPIO17	●	GPIO18(PWM0)	12
13	GPIO27	●	Ground	14
15	GPIO22	●	GPIO23	16
17	3.3V DC Power	●	GPIO24	18
19	GPIO10 (SP10_MOSI)	●	Ground	20
21	GPIO09 (SP10_MISO)	●	GPIO25	22
23	GPIO11 (SP10_CLK)	●	GPIO08 (SPI0_CE0_N)	24
25	Ground	●	GPIO07 (SPI0_CE1_N)	26
27	GPIO00 (SDA0, I <sup>2</sup> C)	●	GPIO07 (SCL0, I <sup>2</sup> C)	28
29	GPIO05	●	Ground	30
31	GPIO06	●	GPIO12 (PWM0)	32
33	GPIO13 (PWM1)	●	Ground	34
35	GPIO19	●	GPIO16	36
37	GPIO26	●	GPIO20	38
39	Ground	●	GPIO21	40

01			02
03			04
05			06
07			08
09			10
11			12
13			14
15			16
17			18
19			20
21			22
23			24
25			26
27			28
29			30
31			32
33			34
35			36
37			38
39			40

