

OP	Decimal	Nibble 1	Nibble 2	Type	Usage	Description
SYMBOLS:		1111				
SEP	-1	1111	1111	Symbol	Seperator	Expression Block Seperator
FUNC	-2	1111	1110	Symbol	Function Block	Function Block Seperator, used while defining functions
ADD	-3	1111	1101	Symbol	Add	
SUB	-4	1111	1100	Symbol	Subtract	
MUL	-5	1111	1011	Symbol	Multiply	
DIV	-6	1111	1010	Symbol	Divide	
AND	-7	1111	1001	Symbol	And	For Joining Conditionals
OR	-8	1111	1000	Symbol	Or	For Joining Conditionals
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CONDITIONALS:		1111				Used in this manner: [Cx][Register or number 1][Register or number 2][code to execute][SEP] If the comparison evaluates to false, then the rest of the expression block is skipped.
CG	-11	1111	0101	Conditional	Greater	
CL	-12	1111	0100	Conditional	Less	
CE	-13	1111	0011	Conditional	Equal	
CNE	-14	1111	0010	Conditional	Not Equal	
CGE	-15	1111	0001	Conditional	Greater or Equal	
CLE	-16	1111	0000	Conditional	Less or Equal	
OP	Decimal	Nibble 1	Nibble 2	Type	Usage	Description
REGISTERS:		1000				
R1	-127	1000	0001	Register	Number Storage	
R2	-126	1000	0010	Register	Number Storage	
R3	-125	1000	0011	Register	Number Storage	
R4	-124	1000	0100	Register	Number Storage	
R5	-123	1000	0101	Register	Number Storage	
R6	-122	1000	0110	Register	Number Storage	
R7	-121	1000	0111	Register	Number Storage	
R8	-120	1000	1000	Register	Number Storage	
OP	Decimal	Nibble 1	Nibble 2	Type	Usage	Description
EEPROM:		1000				For writing to or reading from last 3 bytes in eeprom.

E1S	-119		1001	Storage	E1 Save	
E2S	-118		1010	Storage	E2 Save	
E3S	-117		1011	Storage	E3 Save	
E1R	-116		1100	Storage	E1 Read	
E2R	-115		1101	Storage	E2 Read	
E3R	-114		1110	Storage	E3 Read	
OP	Decimal	Nibble 1	Nibble 2	Type	Usage	Description
FUNCTIONS:		1100				A function name followed by a function block: [Fx][#][#] sets a function. The function name by itself calls that function.
F1	-63	1100	0001	Function		
F2	-62	1100	0010	Function		
F3	-61	1100	0011	Function		
F4	-60	1100	0100	Function		
F5	-59	1100	0101	Function		
F6	-58	1100	0110	Function		
F7	-57	1100	0111	Function		
F8	-56	1100	1000	Function		
OP	Decimal	Nibble 1	Nibble 2	Type	Usage	Description
SLEEP:		1001			Delay Program	
S1	-111	1001	0001	Builtin	sleep 1 second	
S2	-110	1001	0010	Builtin	sleep 2 second	
S3	-109	1001	0011	Builtin	sleep 3 second	
S4	-108	1001	0100	Builtin	sleep 4 second	
S5	-107	1001	0101	Builtin	sleep 5 second	
S6	-106	1001	0110	Builtin	sleep 6 second	
S7	-105	1001	0111	Builtin	sleep 7 second	
S8	-104	1001	1000	Builtin	sleep 8 second	

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DEEP SLEEP:		1011			Save Power	Arduino Power Down Mode
D0	-80	1011	0000	Built-in	infinite deepsleep/wake with RUN button	Sleeps indefinitely until RUN button is pressed.
D1	-79	1011	0001	Built-in	1 minute deepsleep	
D2	-78	1011	0010	Built-in	2 minute deepsleep	
D3	-77	1011	0011	Built-in	3 minute deepsleep	
D4	-76	1011	0100	Built-in	4 minute deepsleep	
D5	-75	1011	0101	Built-in	5 minute deepsleep	
D6	-74	1011	0110	Built-in	6 minute deepsleep	
D7	-73	1011	0111	Built-in	7 minute deepsleep	
D8	-72	1011	1000	Built-in	8 minute deepsleep	
OP	Decimal	Nibble 1	Nibble 2	Type	Usage	Description
LOOP:		1010				
LP	-96	1010	0000	Built-in	Loop Function	When called from within a function or expression, it starts function code from beginning of function or expression.
LR1	-95	1010	0001	Built-in	Loop Register	Loops code block between separators number of times stored in selected register.
LR2	-94	1010	0010			
LR3	-93	1010	0011			
LR4	-92	1010	0100			
LR5	-91	1010	0101			
LR6	-90	1010	0110			
LR7	-89	1010	0111			
LR8	-88	1010	1000			

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PIN:		1110		Builtin	Control Pin	The Pin Bits are arranged in a way that makes it easy to visualize what the pin is set to. PB2 is accessible on the header on top of device. This will be the only pin we are controlling with the Pin Functions.
PDOH	-25	1110	0111	Builtin	Digital, Out, High	
PDOL	-26	1110	0110	Builtin	Digital, Out, Low	
PDIU	-27	1110	0101	Builtin	Digital, In, Pullup	
PDID	-28	1110	0100	Builtin	Digital, In, No Pullup	
PAIX	-29	1110	0011	Builtin	Analog In	
PAXX	-30	1110	0010	Builtin	Read ADC2	The device has a built in resistor divider, to get voltage: (analog reading)*5.5/1024
OP	Decimal	Nibble 1	Nibble 2	Type	Usage	Description
LED:		1101				For controlling built in LED on PB1 and PB0
L0L	-48	1101	0000	Builtin	Led 0, High	
L0H	-47	1101	0001	Builtin	Led 0, Low	
L1L	-46	1101	0010	Builtin	Led 1, High	
L1H	-45	1101	0011	Builtin	Led 1, Low	
OP	Decimal	Nibble 1	Nibble 2	Type	Usage	Description
BUTTONS:		1101				For getting button pressed ID. We exclude Button 1, as that is the STOP button when program is running. These registers are also builtin functions. Calling one of these will check for that button press.
BS	-44	1101	0100	Builtin	Wait til button 2 press	
BT	-43	1101	0101	Builtin	Wait til button 3 press	
BR	-42	1101	0110	Builtin	Wait til button 4 press	
BL	-41	1101	0111	Builtin	Wait til button 5 press	
OP	Decimal	Nibble 1	Nibble 2	Type	Usage	Description
Builtin Functions		1101				
BB	-40	1101	1111	Builtin	Blinks next byte	BB R1