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Keyboard Modifiers

The `Keyboard.write()` and `Keyboard.press()` and `Keyboard.release()` commands don't work with every possible ASCII character, only those that correspond to a key on the keyboard. For example, backspace works, but many of the other non-printable characters produce unpredictable results. For capital letters (and other keys), what's sent is shift plus the character (i.e. the equivalent of pressing both of those keys on the keyboard).

A modifier key is a special key on a computer keyboard that modifies the normal action of another key when the two are pressed in combination.

For more on ASCII values and the characters or functions they represent, see [asciitable.com](http://www.asciitable.com) (<http://www.asciitable.com>)

For multiple key presses use `Keyboard.press` (<http://arduino.cc/en/Reference/KeyboardPress>())

The Leonardo's definitions for modifier keys are listed below:

Key	Hexadecimal value	Decimal value
KEY_LEFT_CTRL	0x80	128
KEY_LEFT_SHIFT	0x81	129
KEY_LEFT_ALT	0x82	130
KEY_LEFT_GUI	0x83	131
KEY_RIGHT_CTRL	0x84	132
KEY_RIGHT_SHIFT	0x85	133
KEY_RIGHT_ALT	0x86	134
KEY_RIGHT_GUI	0x87	135
KEY_UP_ARROW	0xDA	218

KEY_DOWN_ARROW	0xD9	217
KEY_LEFT_ARROW	0xD8	216
KEY_RIGHT_ARROW	0xD7	215
KEY_BACKSPACE	0xB2	178
KEY_TAB	0xB3	179
KEY_RETURN	0xB0	176
KEY_ESC	0xB1	177
KEY_INSERT	0xD1	209
KEY_DELETE	0xD4	212
KEY_PAGE_UP	0xD3	211
KEY_PAGE_DOWN	0xD6	214
KEY_HOME	0xD2	210
KEY_END	0xD5	213
KEY_CAPS_LOCK	0xC1	193
KEY_F1	0xC2	194
KEY_F2	0xC3	195
KEY_F3	0xC4	196
KEY_F4	0xC5	197
KEY_F5	0xC6	198
KEY_F6	0xC7	199
KEY_F7	0xC8	200
KEY_F8	0xC9	201
KEY_F9	0xCA	202
KEY_F10	0xCB	203
KEY_F11	0xCC	204
KEY_F12	0xCD	205

See Also

- `Keyboard.begin` (<http://arduino.cc/en/Reference/KeyboardBegin>())
- `Keyboard.end` (<http://arduino.cc/en/Reference/KeyboardEnd>())
- `Keyboard.press` (<http://arduino.cc/en/Reference/KeyboardPress>())
- `Keyboard.release` (<http://arduino.cc/en/Reference/KeyboardRelease>())
- `Keyboard.releaseAll` (<http://arduino.cc/en/Reference/KeyboardReleaseAll>())

Reference Home (<http://arduino.cc/en/Reference/HomePage>)

Corrections, suggestions, and new documentation should be posted to the Forum (<http://arduino.cc/forum/index.php/board,23.0.html>).

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