

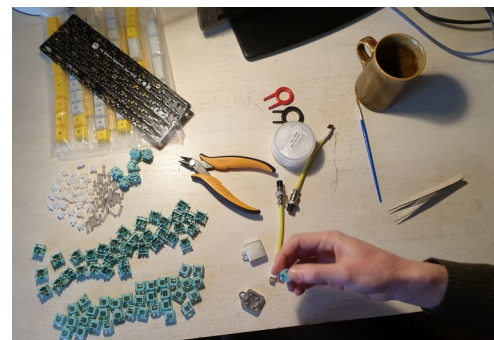
Keyboards suck, but they don't have to



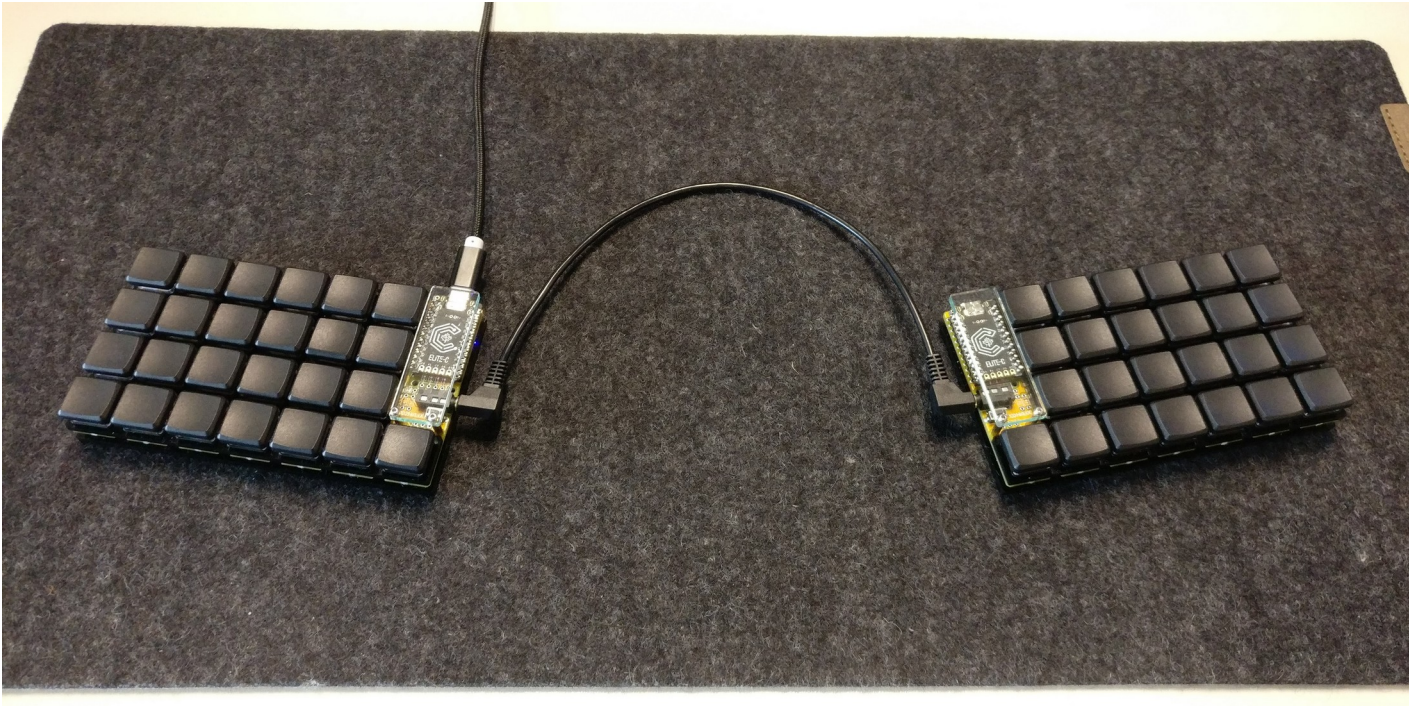
Powered by
QMK Firmware

Who am I?

- Michael Howard
- Work in the public sector
- Drink a lot of coffee
- Build keyboards



My current daily driver

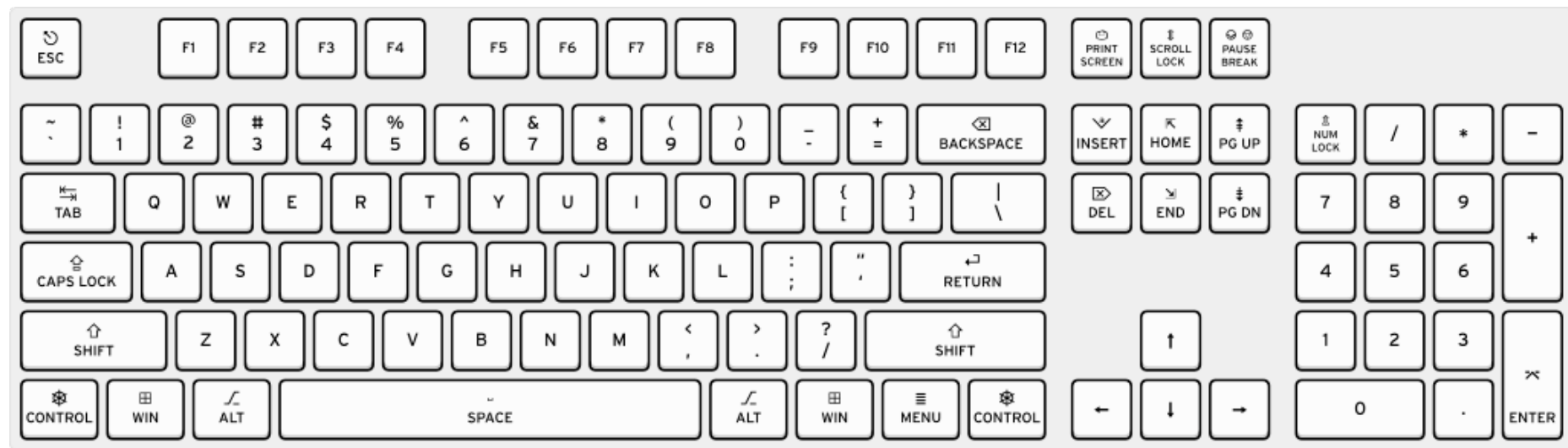


Topics

- Why keyboards?
- What is QMK?
- What can I do with it?

Why keyboards?

- I use one for 8+ hours a day
- Modern keyboard layouts are a weird historical accident
- I want control over my primary input device



Tomiço, CC BY-SA 4.0, via Wikimedia Commons

What is QMK?

In the words of the project:

QMK (Quantum Mechanical Keyboard) is an open source community centered around developing computer input devices. The community encompasses all sorts of input devices, such as keyboards, mice, and MIDI devices.

Features

Mod-Tap

Tap a key to send one keycode, hold it to send another.

For example, turn Space to Control when held.

Tap dance

Tap a key multiple times to send alternate keycodes.

Example: tap once for Escape, tap twice for Caps Lock.

Leader keys

Assign shortcuts or macros to key sequences.

Example: Leader → E → A to type your email address.

Unicode

Set up shortcuts for Unicode characters.

Example: Fn + O to tell your OS to print ō.

Mouse emulation

Move your mouse cursor around. This includes Left/Right/Middle Click, plus mouse wheel controls.

How do I use it?

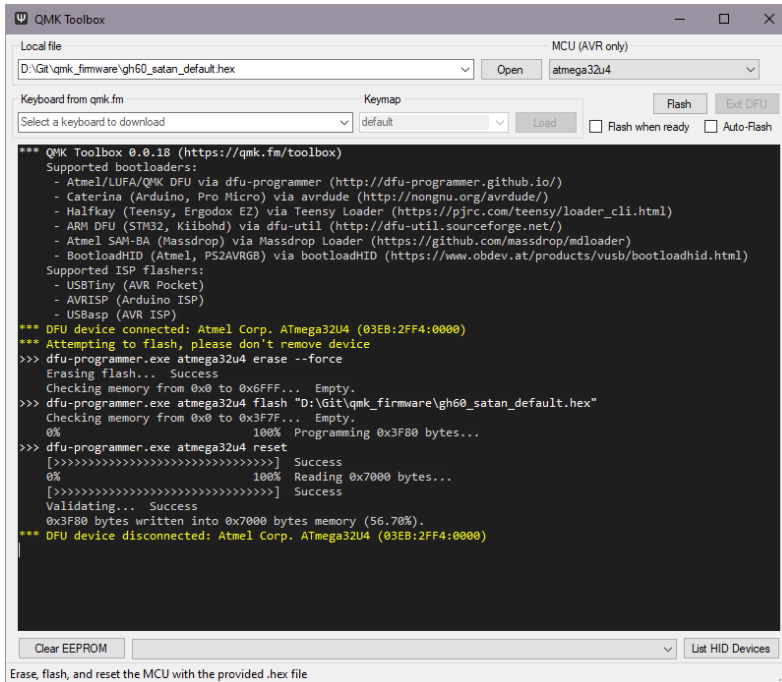
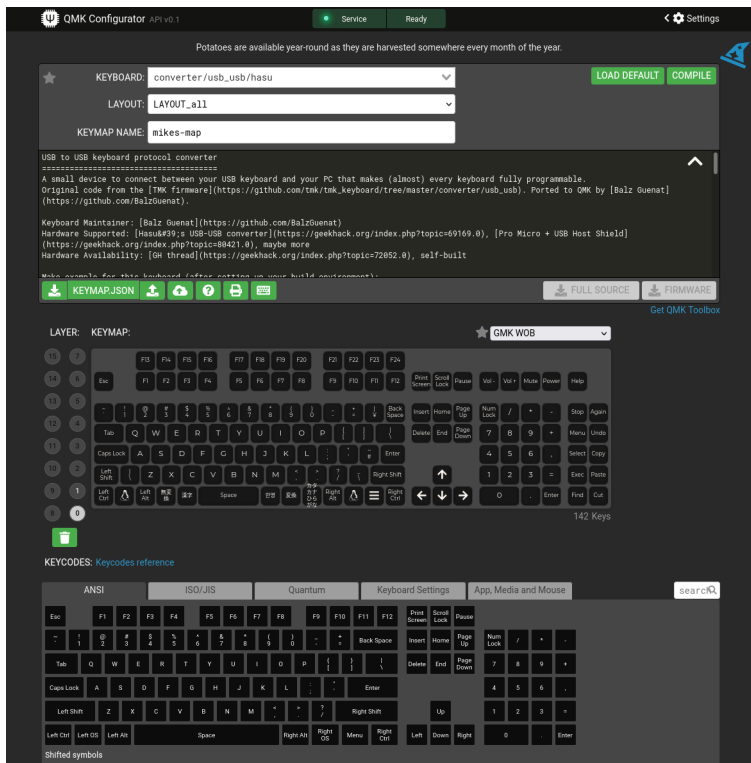
```
#include QMK_KEYBOARD_H

const uint16_t PROGMEM keymaps[][MATRIX_ROWS][MATRIX_COLS] = {

  [0] = LAYOUT(
    KC_ESC,  KC_F1,   KC_F2,   KC_F3,   KC_F4,   KC_F5,   KC_F6,   KC_F7,   KC_F8,   KC_F9,   KC_F10,  KC_F11,  KC_F12,  KC_PSCR, MO(1),  KC_DEL,
    KC_GRV,  KC_1,    KC_2,    KC_3,    KC_4,    KC_5,    KC_6,    KC_7,    KC_8,    KC_9,    KC_0,    KC_MINS, KC_EQL,  KC_DEL,  KC_BSPC, KC_HOME,
    KC_TAB,  KC_Q,    KC_W,    KC_E,    KC_R,    KC_T,    KC_Y,    KC_U,    KC_I,    KC_O,    KC_P,    KC_LBRC, KC_RBRC, KC_BSLS, KC_PGUP,
    KC_CAPS, KC_A,    KC_S,    KC_D,    KC_F,    KC_G,    KC_H,    KC_J,    KC_K,    KC_L,    KC_SCLN, KC_QUOT,          KC_ENT,  KC_PGDN,
    KC_LSFT, MO(1),  KC_Z,    KC_X,    KC_C,    KC_V,    KC_B,    KC_N,    KC_M,    KC_COMM, KC_DOT,  KC_SLSH, KC_RSFT,          KC_UP,   KC_END,
    KC_LCTL, KC_LGUI, KC_LALT,          KC_SPC, KC_SPC, KC_SPC,          KC_RALT, MO(1),  KC_RCTL, KC_LEFT, KC_DOWN, KC_RGHT
  ),

  [1] = LAYOUT(
    _____, _____, _____, _____, _____, _____, _____, _____, _____, _____, _____, _____, _____, _____, _____, _____,
    _____, _____, _____, _____, _____, _____, _____, _____, _____, _____, _____, _____, _____, RESET, _____,
    _____, RGB_TOG, RGB_MOD, RGB_HUI, RGB_HUD, RGB_SAI, RGB_SAD, RGB_VAI, RGB_VAD, _____, _____, _____, _____, _____, _____,
    _____, _____, _____, _____, BL_DEC, BL_TOGG, BL_INC, BL_STEP, _____, _____, _____, _____, _____, _____, _____,
    _____, _____, _____, _____, _____, _____, _____, _____, _____, _____, _____, _____, _____, _____,
  ),
};
```


GUI tools



CLI tools

```
python3 -m pip install --user qmk
```

```
qmk setup
```

```
qmk compile -kb <keyboard> -km default
```

```
qmk flash -kb <my_keyboard> -km <my_keymap>
```

Questions?