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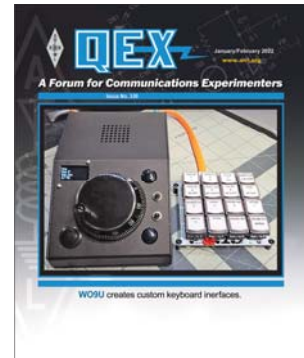
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About the Cover

Tim Czerwonka, WO9U, uses Quantum Mechanical Keyboard (qmk) open-source microcontroller firmware to create customized keyboard interfaces. One interface is a simple rotary encoder with five programmable buttons and OLED display for use with a software-defined radio. The second is a commercial USB numeric keypad where he substituted his own microcontroller and firmware to achieve the desired programmability. The third is a 16-key macropad kit that would prove a quick and inexpensive keyboard addition in any ham shack. The qmk firmware offers a simple platform to generate key combinations with custom hardware that can simplify many software or radio tasks.



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