Jiacheng Zhang Lab 2 Report ECE 2031 L07 28 January 2022

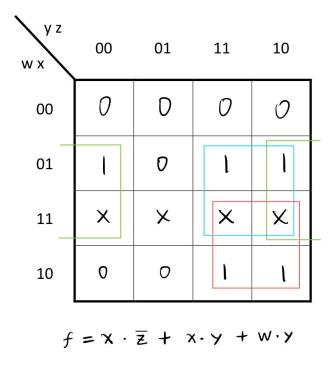


Figure 1. The K-map of a prototyping circuit with all the prime implicants circled on it and the result Boolean expression $f = x \cdot /z + x \cdot y + w \cdot y$.

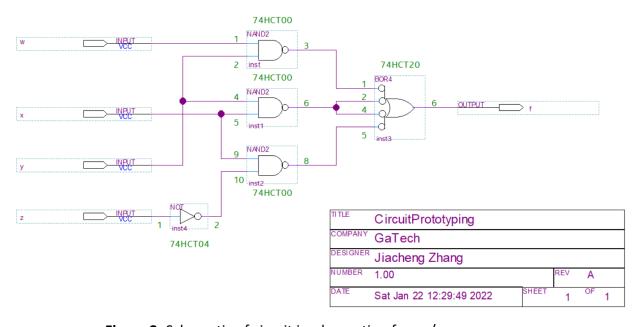


Figure 2. Schematic of circuit implementing $f = x \cdot /z + x \cdot y + w \cdot y$.

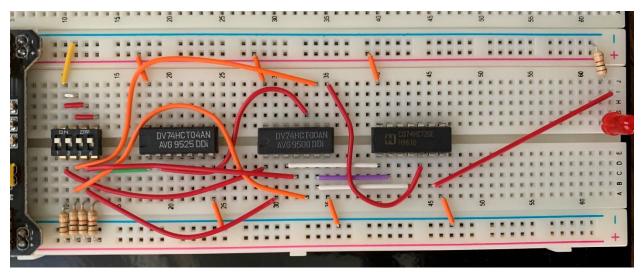


Figure 3. Breadboard circuit implementing $f = x \cdot /z + x \cdot y + w \cdot y$. The switch block controls the input signal, and the LED is an output indicator.

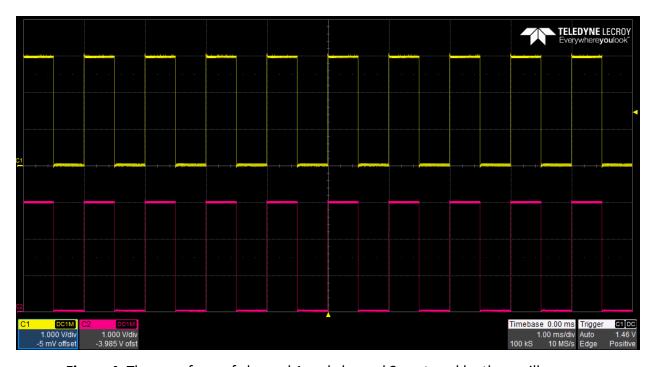


Figure 4. The waveform of channel 1 and channel 2 captured by the oscilloscope.