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Lab Report 2

ECE 2031 L09

2 February 2022

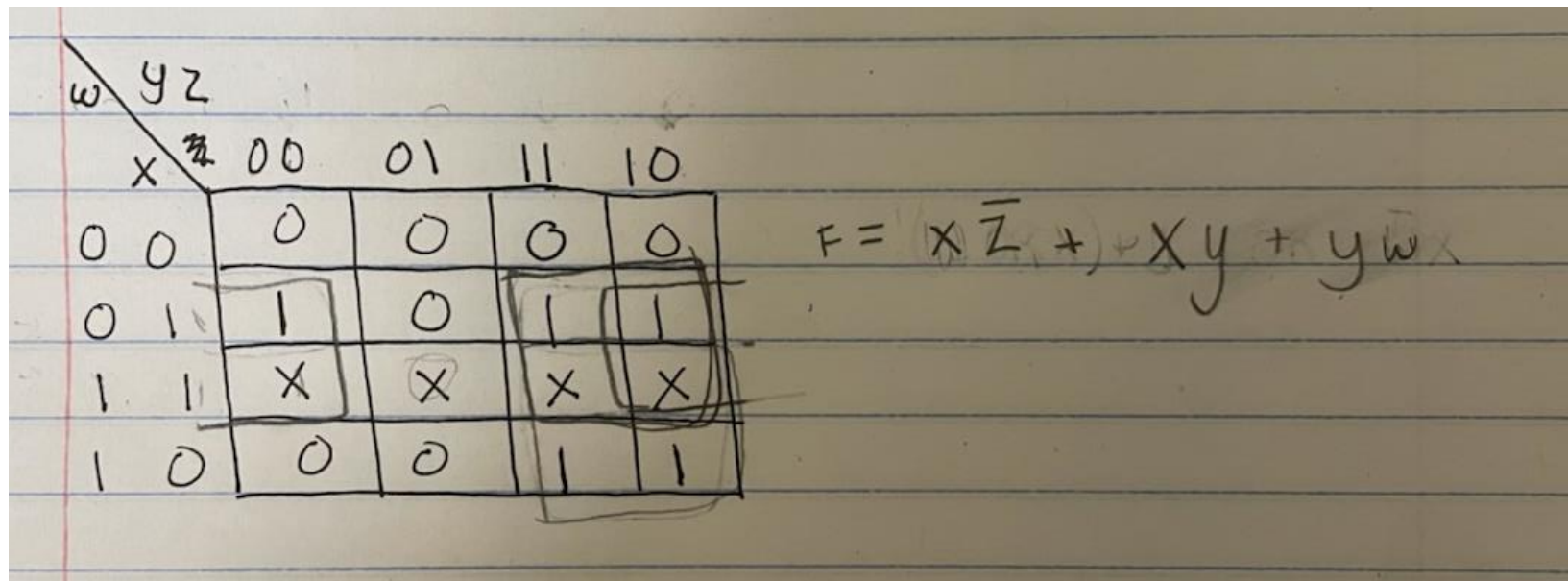


Figure 1. Karnaugh map with minterms encircled. The map is simplified to the expression on the right: Output = $X*Z + X*Y + Y*W$.

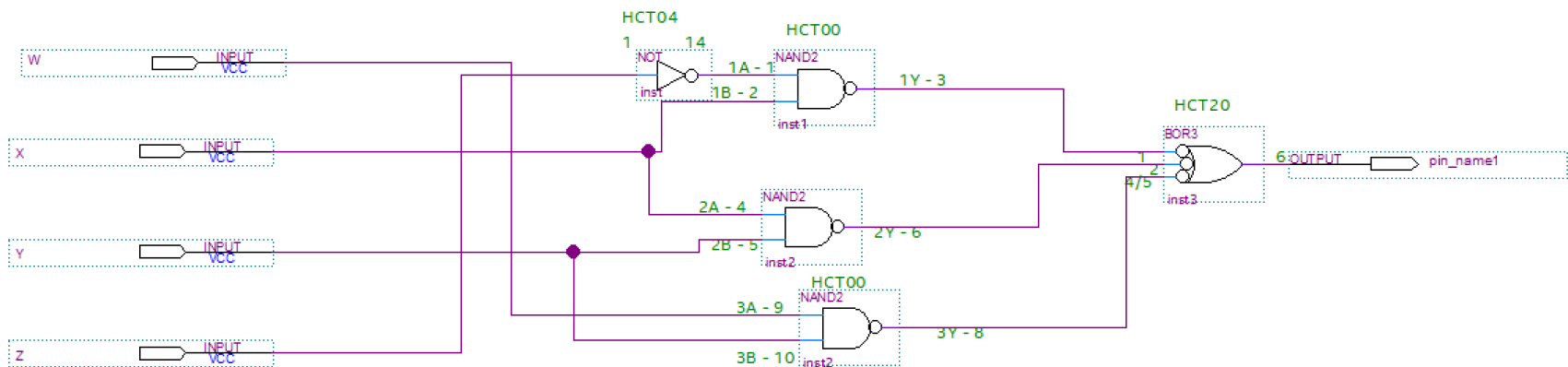


Figure 2. Circuit schematic that implements the equation $\text{Output} = X*Z + X*Y + Y*W$. The diagram has the chip types and ports specified for physical implementation on the breadboard.

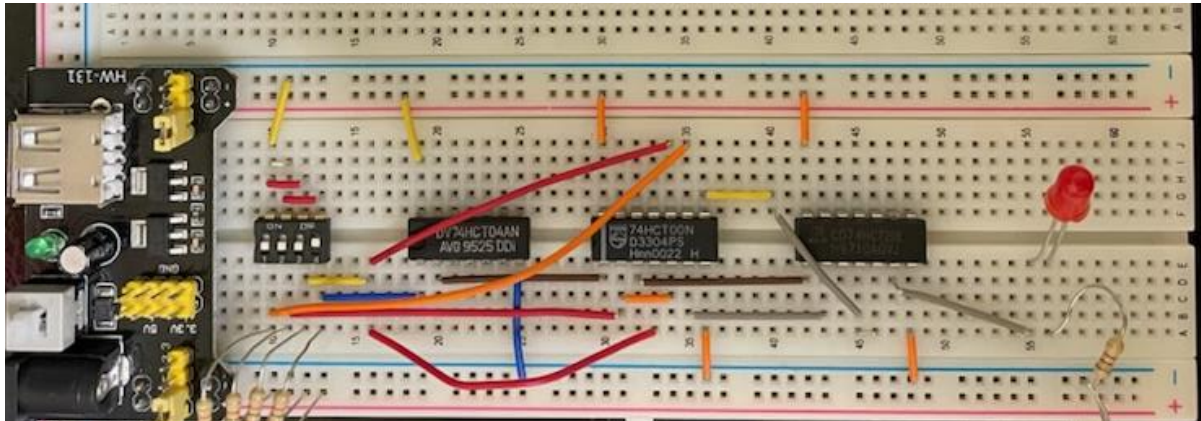


Figure 3. The circuit implementation of the boolean function $LED = X*/Z + X*Y + Y*W$ where W, X, Y, and Z are the switches towards the left of the circuit board.

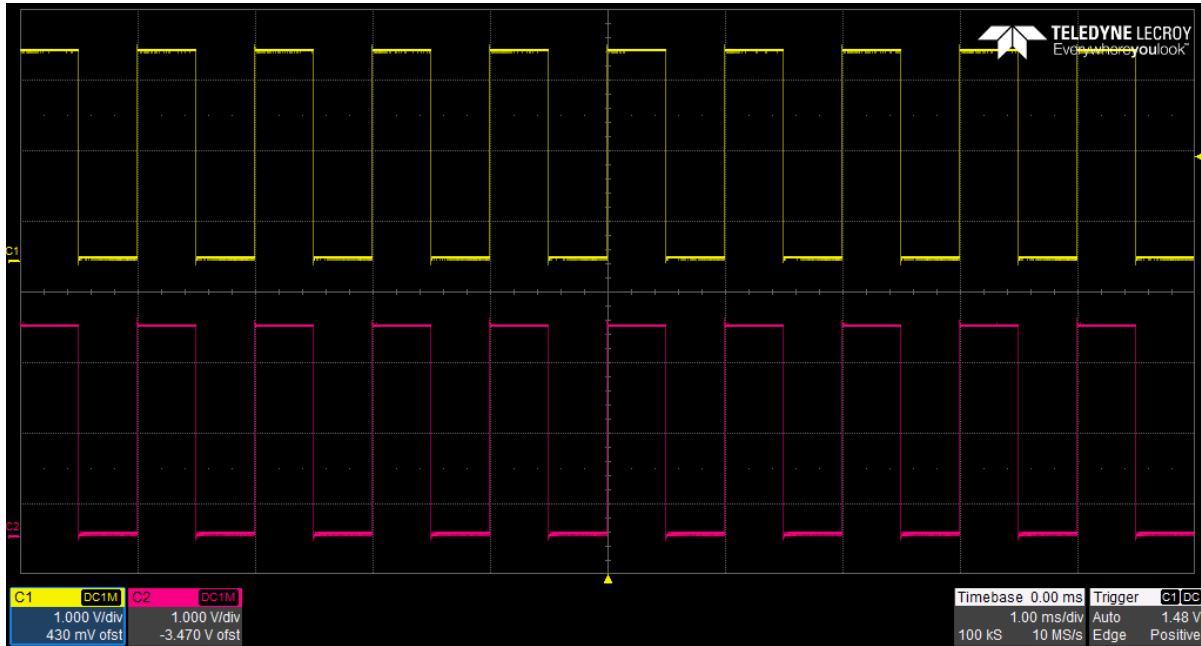


Figure 4. The square waves of the oscilloscope's calibration signal for both probes V1 (yellow) and V2 (pink).