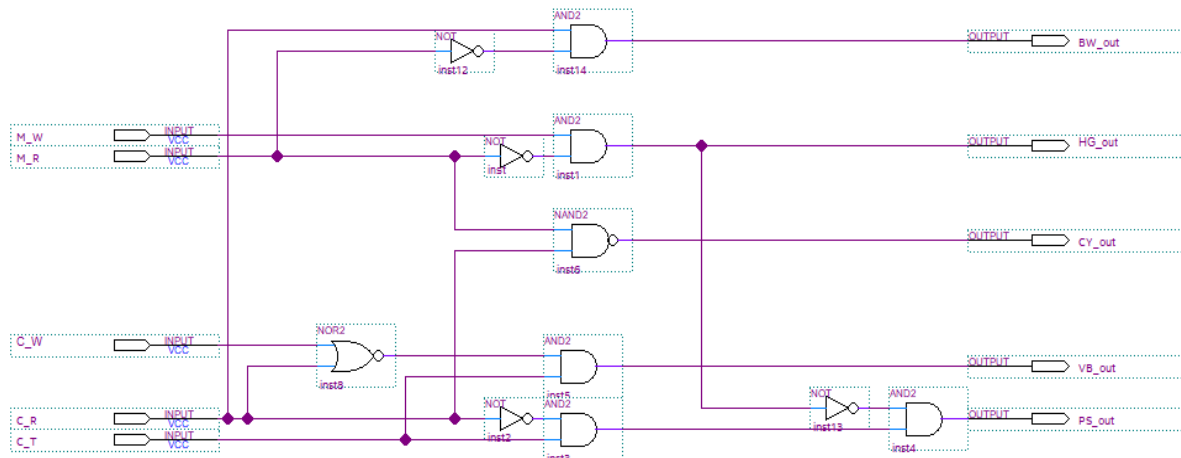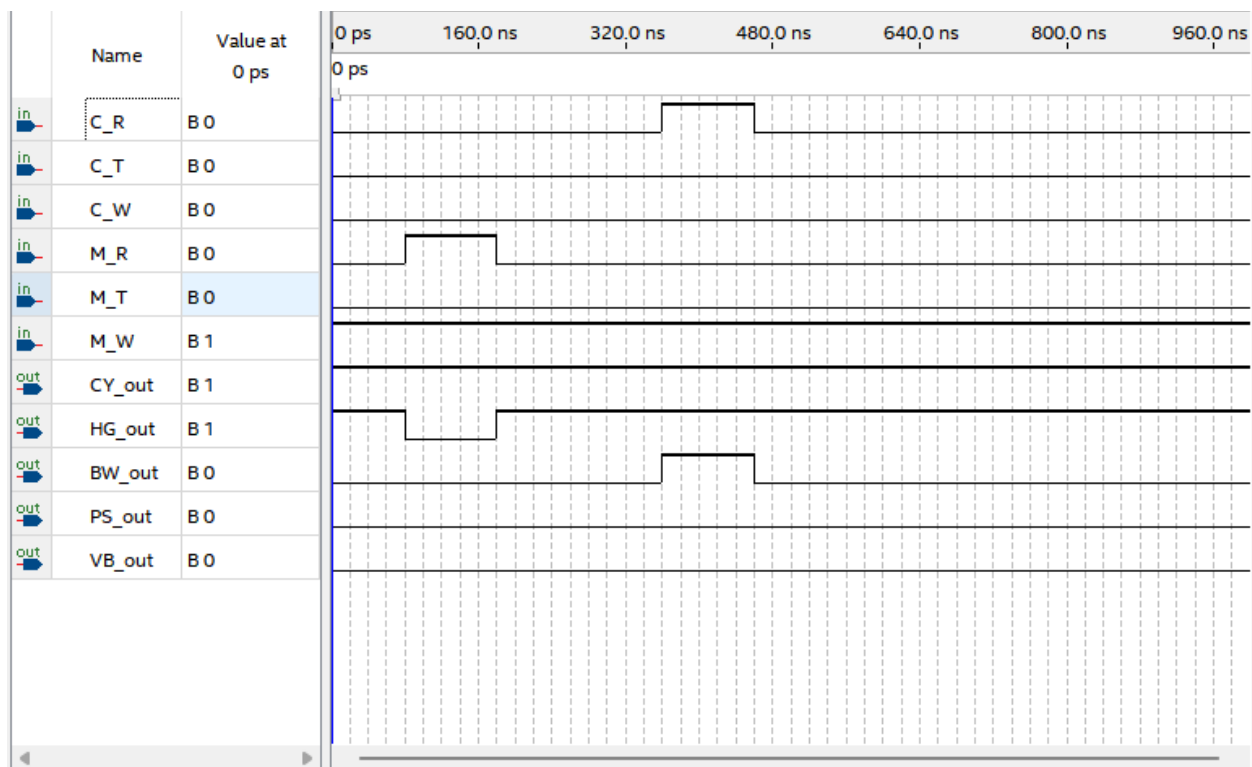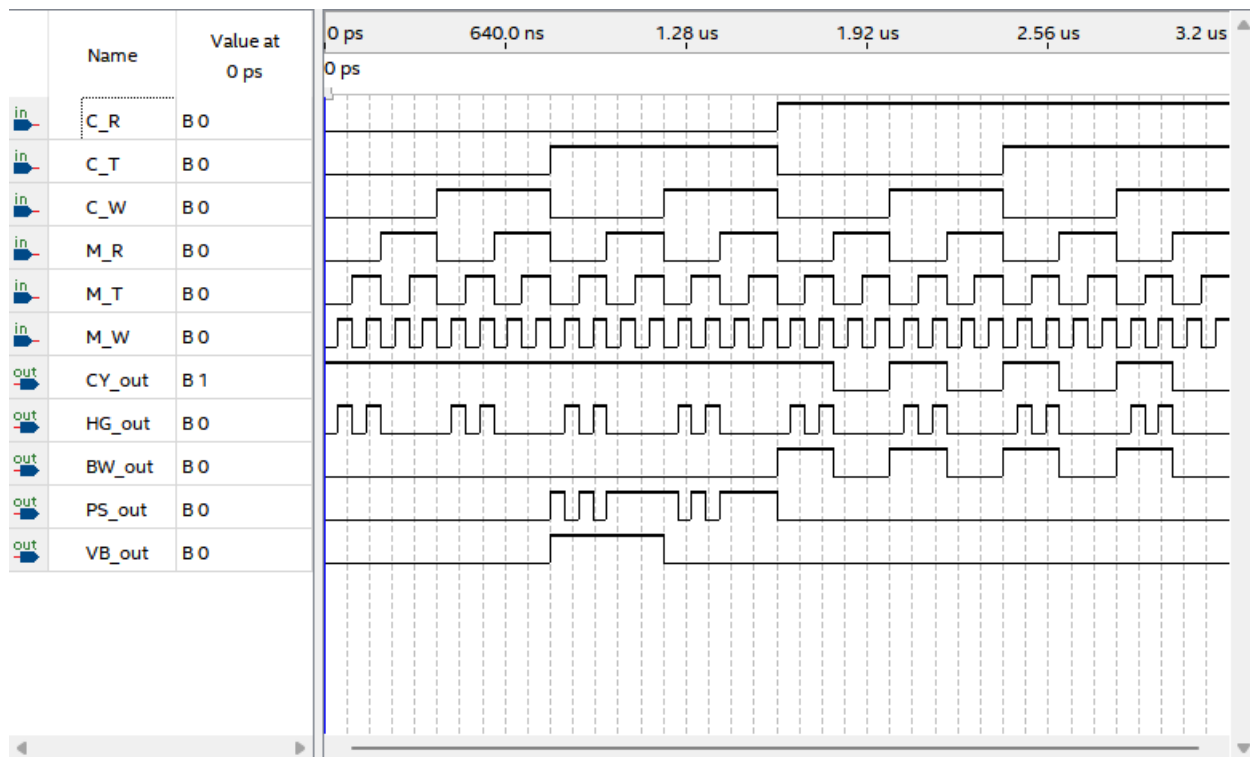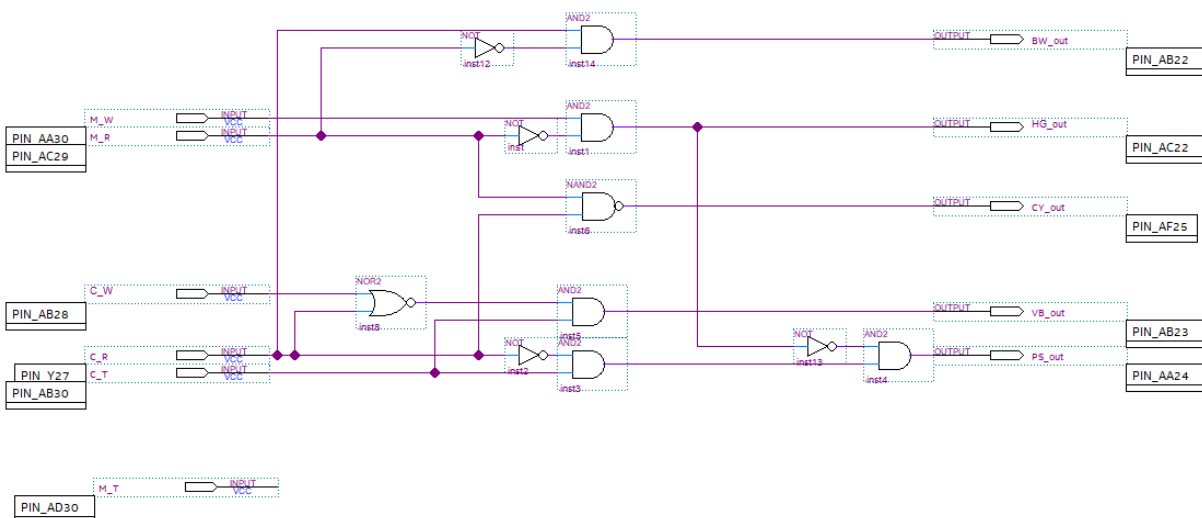Darnell Chen
Lab Report
ECE 2031 L02
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Figure 1. Combinational Logic Circuit where LEDs light up for certain switch inputs. The switches represent weather sensors, and the LEDs represent suitable activities for the given weather.

Figure 2. Wave form for our suitable activities device. High assertion for windy mountains (M_W) and rainy mountains (M_R) results in a low-assertion for Hang Gliding. On the other hand, high assertion for coastal rain and low assertion for rainy mountains produces a high assertion for birdwatching.

Figure 3. Waveform which produces every combination of input and output possible. Each sequential input from top to bottom has half the periodic interval compared to the input above it.

Figure 4. Pin assignments for our LED and Switches as per our DE10-Standard user manual.