

Updated "CRC Computation" mini project problem statement

Compute CRC of numbers (use standard CRC16-CCITT). We will use 16-bit numbers (n) as input (provided by 16 switches on the board).

Using the push buttons:

1. To load the 16-bit inputs in a BRAM (for $n = 10$).
2. To reset the CRC computation and reset the checksum to the seed value.
3. To start the CRC computation with no error introduced.
4. To start the CRC computation with error introduced in the 5th word at 7th bit.
5. To start the CRC computation with error introduced in the 3th word at 12th bit.

Introduction of error: complement of bit at the said position.

Make sure the input block of data is to be entered first then the computation for CRC has to be invoked. The checksum is to be calculated and updated as another entry of BRAM (i.e. the next input data) is read.

For cases (4) and (5) first the error should be introduced in the said word and then the CRC computation should start.

The seven segment display should display the checksum for the block of data and should remain on display until reset is pressed.

