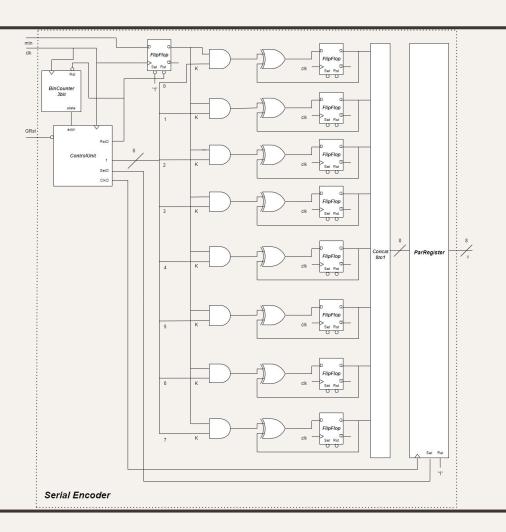
Hadamard Codes

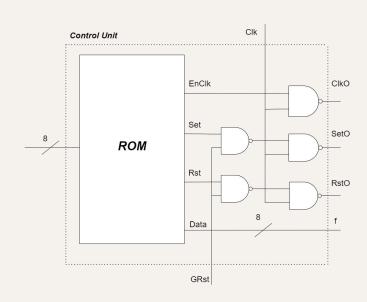
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Encoder

Serial



Logic Gates

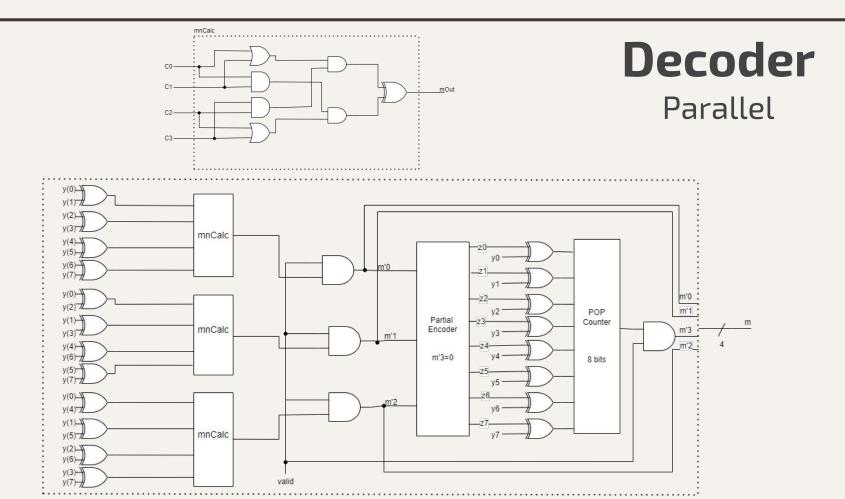
Encoder

Serial

- 8 AND Gates
- 8 XOR Gates

Components

- 1 Binary Counter
- 1 Control Unit
- 9 FlipFlop
- Concatenator 8 to 1
- 1 Parity Register



Logic Gates

- Decoder
 - Parallel

- 25 **XOR Gates**
- 4 AND Gates
- 16 **NOT Gates**
- 7 OR Gate

Components

- 6 m_n Calculator
- 7 Partial Encoder
- 2 Concatenator
- 7 Pop Counter

Worst Case Propagation Delay

• 12 **XOR** + 3 **AND**

Error m0(1) **Detection** m0(E) m1(1) mnCalc m2(1)