# Problem Statement:

Design a 2x4 Decoder with Enable signal.

# Block Diagram:

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|  |

Input and Outputs are as shown above.

# Truth Table:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Inputs | | | Outputs | | | |
| E | A | B | D0 | D1 | D2 | D3 |
| 1 | x | x | 1 | 1 | 1 | 1 |
| 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 0 | 0 | 1 | 1 | 0 | 1 | 1 |
| 0 | 1 | 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 1 | 1 | 0 |

# Design Equations:

# Circuit Implementation:

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|  |

# Results:

