Ripple Carry Adder

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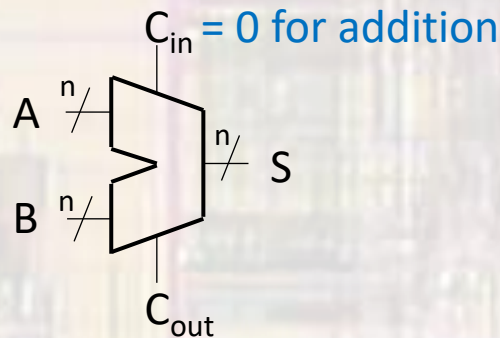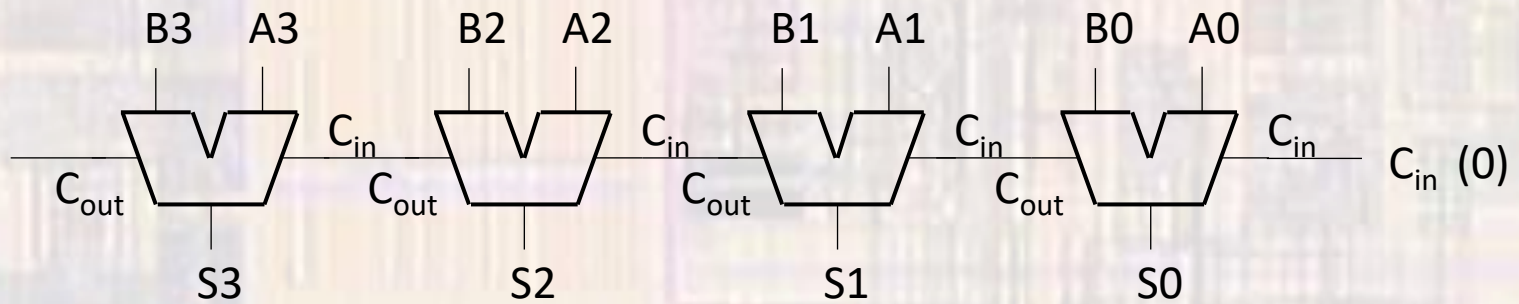
Ripple Carry Adder

- Multi-bit addition requires carry in and carry out values

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  $$1111$$
  $$+\ \ \ 1001$$
  $$\overline{\ \ 1000}$$

  - Full Adder required
  - Carry out of 1 column is the carry in of the next

C_{in} = 0 for addition

Ripple Carry Adder

- Very slow
  - Requires the carry to ripple from stage to stage
  - Carry out = $AB + AC_{in} + BC_{in}$ → And + Or delay