

Electronics Other Sensors

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Transistors and diodes

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- diodes like zener diode; reverse current changes

Transistors and diodes

- diodes like zener diode; reverse current changes
- transistors: base comes from environment; pull-up on output (or pull-down)

Single-chip devices

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- Hall effect

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- Temperature, etc.

Single-chip devices

- Hall effect
- Temperature, etc.
- linear, usually 5V in

Available transducers

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UGN3503 Hall sensor

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UGN3503 Hall sensor

PDB-C107 photodiode

Available transducers

UGN3503 Hall sensor

PDB-C107 photodiode

PDB-V107 photodiode

Available transducers

UGN3503 Hall sensor

PDB-C107 photodiode

PDB-V107 photodiode

SFH229 photodiode

Available transducers

UGN3503 Hall sensor

PDB-C107 photodiode

PDB-V107 photodiode

SFH229 photodiode

MRD-310 phototransistor

Available transducers

UGN3503 Hall sensor

PDB-C107 photodiode

PDB-V107 photodiode

SFH229 photodiode

MRD-310 phototransistor

GP2Y0A21YK-1 infrared distance sensor

Wiring tips

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- “Extra” current from TTL

Wiring tips

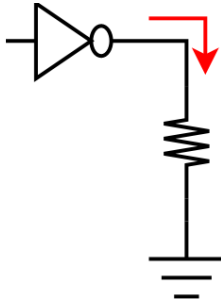
- “Extra” current from TTL
- sink instead of source

Wiring tips

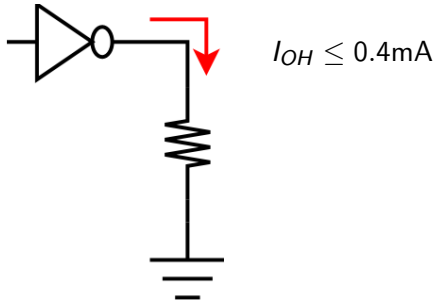
- “Extra” current from TTL
- sink instead of source
- 0.4mA vs. 8 mA (LS)

Current sourcing

Current sourcing

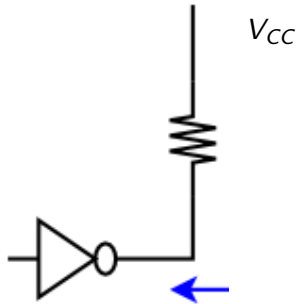


Current sourcing

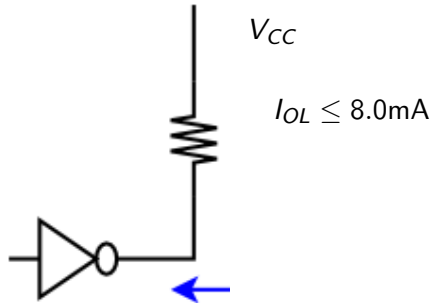


Current sinking

Current sinking



Current sinking



Using a TTL gate to sink instead of source allows 20x the current!