

# LED Flashlight, Solderless, under \$10

Part from Jack's 99 Cent Store, 32<sup>nd</sup> St. between 6<sup>th</sup> & 7<sup>th</sup> Ave, NYC:

1. 2 AAA Batteries: 99 cents

Parts from Home Depot:

1. 1 foot of Cat 5 cable (split for 20 gauge wire), Part #: 709489: 27 cents
2. Wood shims, Part #: 091-996-002-0000: \$1.09
4. Electrical Tape, Part #: 0-775-78-03-777-6, 59 cents:
5. Light switch, Part #: 078-477-772-713: 64 cents

Parts from Radio Shack:

1. 2 - 5 mm high brightness white LED, Part #: 276-017: \$1.99
2. AAA Battery Holder, Part #: 270-398: 99 cents

Tools:

1. #2 Phillips head screwdriver
2. Wire cutter/stripper
3. Scissors

Design Goals:

1. Solderless
2. Least expensive components
3. High brightness
4. Durable
5. Easy to assemble
6. Flat; cannot roll
7. Can be inserted into narrow spaces

**Total cost: \$6.56**

**Schematic:**

