Re: Simple inverter switch transistor circuit help needed

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- *Date*: Thu, 26 Jul 2007 07:16:31 −0700

On Jul 25, 9:47 pm, ferrari.secret.sa...@xxxxxxxxx wrote:

> I am experiencing brain freeze or something, but I cannot figure out
> the following...
>
> Lets say I have three wires, power, ground, and switch. Power is
> always on, ground is always connected to ground. I selectively apply
> power to the switch wire. I have two LED's. LED 1 is on whenever
> there is power on the power wire and ground is connected and LED 2 is
> off.
>
> Using transistor(s), how can I make it so that when power is applied
> to the switch wire, LED 1 turns off, and LED 2 turns on instead.
>
> This isnt a school assignment or anything − I'm just learning as I go
> and this particular problem has me a bit stumped. I was thinking of
> using a NPN driving a PNP on LED1 and an NPN on LED 2, and connecting
> the switch wire to the base of the NPN on LED two, as well as the base
> of the PNP on LED 1 (through a diode to prevent backflow of current),
> so that when power is applied it pulls the base of the NPN on LED 2
> high, and also pulls the base on the PNP on LED1 high, turning off the
> transistor and therefore turning off the LED.
>
> Or is there a better/simpler way?

Consider this:

```
D2 D1
+V −−−−−+−−−−−/\/\−−−>!−−−−−+−−−−−/\/\−−−−>!−−−−−GND
! !
−−−−/\/\−−−−−−−−−−−+−−−−−−/0−−−−−−−−−−−−GND
R1 SW1
```

I R1 has a low value, When SW1 is off, only D1 is on. When SW1 is on,
only D2 is on.

SW1 cna be a transistor.

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