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|  | Author | Topic: Driving 12V signal from 5V pin  (Read 1952 times) |
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| |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | [captncraig](http://forum.arduino.cc/index.php?PHPSESSID=rs97r84reljdrieq55j1nh1ij2&action=profile;u%3D29234)  0  Offline  Newbie  Karma: 0  Posts: 5  Arduino rocks | |  |  |  | | --- | --- | --- | |  | [Re: Driving 12V signal from 5V pin](http://forum.arduino.cc/index.php?PHPSESSID=rs97r84reljdrieq55j1nh1ij2&topic=67851.msg499313#msg499313)  « **Reply #2 on:** July 28, 2011, 04:38:23 pm » | [**Bigger**](http://forum.arduino.cc/index.php?topic=67851.0#)  [**Smaller**](http://forum.arduino.cc/index.php?topic=67851.0#)  [**Reset**](http://forum.arduino.cc/index.php?topic=67851.0#) |   That feels like overkill. I already have a 12V signal from Vin. I just need a way to switch it to the eeprom based on a 5v pin. Yes, that should work, but isn't there a simpler way? | | |  |  | | --- | --- | |  |  | |  | Logged | | | |  | |
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| |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | [Grumpy\_Mike](http://forum.arduino.cc/index.php?PHPSESSID=rs97r84reljdrieq55j1nh1ij2&action=profile;u%3D5282)  Manchester (England England)  Offline  Brattain Member  Karma: 467  Posts: 29682  Solder is electric glue | |  |  |  | | --- | --- | --- | |  | [Re: Driving 12V signal from 5V pin](http://forum.arduino.cc/index.php?PHPSESSID=rs97r84reljdrieq55j1nh1ij2&topic=67851.msg499325#msg499325)  « **Reply #4 on:** July 28, 2011, 04:47:57 pm » | [**Bigger**](http://forum.arduino.cc/index.php?topic=67851.0#)  [**Smaller**](http://forum.arduino.cc/index.php?topic=67851.0#)  [**Reset**](http://forum.arduino.cc/index.php?topic=67851.0#) |   It depends on what you want the signal to be when it is not 12V. If it is zero volts then a simple transistor will do as in the above link. However I have had eproms that required to switch between 5V and 12V. Which is it? | | |  |  | | --- | --- | |  |  | |  | Logged | | | |  | |
| |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | [captncraig](http://forum.arduino.cc/index.php?PHPSESSID=rs97r84reljdrieq55j1nh1ij2&action=profile;u%3D29234)  0  Offline  Newbie  Karma: 0  Posts: 5  Arduino rocks | |  |  |  | | --- | --- | --- | |  | [Re: Driving 12V signal from 5V pin](http://forum.arduino.cc/index.php?PHPSESSID=rs97r84reljdrieq55j1nh1ij2&topic=67851.msg499502#msg499502)  « **Reply #5 on:** July 28, 2011, 11:57:28 pm » | [**Bigger**](http://forum.arduino.cc/index.php?topic=67851.0#)  [**Smaller**](http://forum.arduino.cc/index.php?topic=67851.0#)  [**Reset**](http://forum.arduino.cc/index.php?topic=67851.0#) |   It requires 5V to read the data, but for this application I really just want to program it, it is going to be used in an entirely different system. That being the case, I only need to switch between 12V and ground.  pwillard, I mainly didn't like the chip idea because I am working on a shield sized board, and it already has 4 rather large ICs on it, and the routing it pretty hairy already. I don't have much room to spare, and I doubt I can get two more DIP-8 components and all of the routing on without extending the board, which would not be the end of the world I suppose. After looking at the chip, its quite nice. I would not need to use a diode to protect my 595 because the chip would be in between. | | |  |  | | --- | --- | |  |  | |  | Logged | | | |  | |
| |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | [Grumpy\_Mike](http://forum.arduino.cc/index.php?PHPSESSID=rs97r84reljdrieq55j1nh1ij2&action=profile;u%3D5282)  Manchester (England England)  Offline  Brattain Member  Karma: 467  Posts: 29682  Solder is electric glue | |  |  |  | | --- | --- | --- | |  | [Re: Driving 12V signal from 5V pin](http://forum.arduino.cc/index.php?PHPSESSID=rs97r84reljdrieq55j1nh1ij2&topic=67851.msg499529#msg499529)  « **Reply #6 on:** July 29, 2011, 01:21:54 am » | [**Bigger**](http://forum.arduino.cc/index.php?topic=67851.0#)  [**Smaller**](http://forum.arduino.cc/index.php?topic=67851.0#)  [**Reset**](http://forum.arduino.cc/index.php?topic=67851.0#) |   Quote  It requires 5V to read the data, but for this application I really just want to program it, it is going to be used in an entirely different system. That being the case, I only need to switch between 12V and ground.  Most of the time a programmer reads back the data to verify what you put in has stuck. | | |  |  | | --- | --- | |  |  | |  | Logged | | | |  | |
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| |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | [HighSeraphim](http://forum.arduino.cc/index.php?PHPSESSID=rs97r84reljdrieq55j1nh1ij2&action=profile;u%3D21432)  Michigan, United States  Offline  Jr. Member  Karma: 0  Posts: 69 | |  |  |  | | --- | --- | --- | |  | [Re: Driving 12V signal from 5V pin](http://forum.arduino.cc/index.php?PHPSESSID=rs97r84reljdrieq55j1nh1ij2&topic=67851.msg499706#msg499706)  « **Reply #8 on:** July 29, 2011, 08:13:23 am » | [**Bigger**](http://forum.arduino.cc/index.php?topic=67851.0#)  [**Smaller**](http://forum.arduino.cc/index.php?topic=67851.0#)  [**Reset**](http://forum.arduino.cc/index.php?topic=67851.0#) |   If what you need to do is to simply switch 12VDC on and off using the 5VDC signal, here is a guide to using a transistor as a switch. This could also be done very simply (Although slightly less power efficient) with a 5VDC relay or more expensively with a solid state relay.  <http://www.rason.org/Projects/transwit/transwit.htm>  I recommend example 2. Switching the negative is simple and the transistors to do it are easier to find and cheaper. | | |  |  | | --- | --- | |  |  | |  | Logged |   Always Think! | | |  | |
| |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | [captncraig](http://forum.arduino.cc/index.php?PHPSESSID=rs97r84reljdrieq55j1nh1ij2&action=profile;u%3D29234)  0  Offline  Newbie  Karma: 0  Posts: 5  Arduino rocks | |  |  |  | | --- | --- | --- | |  | [Re: Driving 12V signal from 5V pin](http://forum.arduino.cc/index.php?PHPSESSID=rs97r84reljdrieq55j1nh1ij2&topic=67851.msg499928#msg499928)  « **Reply #9 on:** July 29, 2011, 01:13:59 pm » | [**Bigger**](http://forum.arduino.cc/index.php?topic=67851.0#)  [**Smaller**](http://forum.arduino.cc/index.php?topic=67851.0#)  [**Reset**](http://forum.arduino.cc/index.php?topic=67851.0#) |   Wow. It seems like to do what I really want to, which I think is read and write, I'm gonna need a lot more than I initially thought. Since the eeprom data pins are input and output, I will need a SIPO shift register to write data, and a PISO shifter to read it back into the arduino. I will also need a gate of some kind so that the shift registers in opposite directions don't screw each other up.  Since both A9 and OE pins require 5V or 0V or 12V in different circumstances, I suspect that I will want a more complicated chip to manage that independently. Guess I'll start over on my schematic and see where it goes. | | |  |  | | --- | --- | |  |  | |  | Logged | | | |  | |
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| |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | [HighSeraphim](http://forum.arduino.cc/index.php?PHPSESSID=rs97r84reljdrieq55j1nh1ij2&action=profile;u%3D21432)  Michigan, United States  Offline  Jr. Member  Karma: 0  Posts: 69 | |  |  |  | | --- | --- | --- | |  | [Re: Driving 12V signal from 5V pin](http://forum.arduino.cc/index.php?PHPSESSID=rs97r84reljdrieq55j1nh1ij2&topic=67851.msg500032#msg500032)  « **Reply #11 on:** July 29, 2011, 03:44:13 pm » | [**Bigger**](http://forum.arduino.cc/index.php?topic=67851.0#)  [**Smaller**](http://forum.arduino.cc/index.php?topic=67851.0#)  [**Reset**](http://forum.arduino.cc/index.php?topic=67851.0#) |   @Grumpy Mike  Agreed. His question appears to be more complex than I originally thought that it was. | | |  |  | | --- | --- | |  |  | |  | Logged |   Always Think! | | |  | |
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