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Setting up the Propeller on the Boss Board

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Setting up the Propeller on the Boss Board

by **nmclana**

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Posted: **Mon Mar 23, 2009 4:39 pm**

There are many ways to set things up on the boss board, but here are a few setups I've used that you might also find useful;

POWER

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The main regulator is the ST. The ON regulator goes at [Pf]

POWER LED

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SETTING UP THE PROP

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POTENTIOMETERS

The Designers Kit includes 5k Pots. We also have a 10k pot in inventory, the benefit of the 10k is it has a center indent (it kind of clicks at the halfway rotation point). There's also a 50k pot in inventory, but I don't suggest you use it unless you have to (they're \$3 each).

Howto pdf for RC Decay.

Howto pdf for the Sigma Delta. I've seen more complicated sigma delta circuits, but this has worked just fine for me while reading potentiometers.

NINTENDO

The Nintendo controller power is already wired up. BCD28 are Clock, BCD27 are Latch, and BCD26 are Data out. There's also an MIT licensed Nintendo controller object in the Propeller Object Exchange.

AUDIO

I use the .1uF Ceramic Cap for blocking. GHJ26 is connected to the RCA jack [Pp]. I've seen more complicated audio circuits, but this works just fine for me with sufficient fidelity for things like voice.

PROP PLUG HEADERS

Remember, projects you share on Gadget Gangster don't need programming headers (EEPROM's come pre-programmed), but you might find it useful to add headers when doing development

howto_propeller_ISP.pdf
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PS/2

D21 - Ground
D25 - Power
D26 - Data
D22 - Clock

Here's the keyboard library, and the mouse library.

Re: Setting up the Propeller on the Boss Board

by **vaati**

Posted: **Sun Apr 19, 2009 8:56 am**

So, where exactly does the xtal go? I've been wondering where in the world it could go without taking the position of a different component...

Also, what do the different pot set-ups do...? i.e.; what does 'sigma delta' refer to...

Re: Setting up the Propeller on the Boss Board

by **nmclana**

Posted: **Sun Apr 19, 2009 12:11 pm**

H11 - H 13 for the xtal. Of course, not every propeller project will require a xtal.

Two ways to read potentiometers.

1 - RC decay; charge up a cap, and let it charge down thru a potentiometer. Count how long it takes to discharge and you'll figure out what position the knob is.

Advantages: only takes one pin. Disadvantages: non-linear discharge time, takes a bit of time to discharge. download the Propeller education lab kit fundamentals to see how RC decay is done.

2 - Sigma Delta: Set the pot up as a voltage divider. Measure the voltage it's putting out. Advantages: Real-time measurement, linear response. Disadvantages: takes two pins, more complicated setup. there should be an ADC library in the Prop development tool.