

Current consumed by Propeller 1 on protoboard.

Propeller current only, not including regulators.

Current measured with 6.5 digit Aligent meter, frequency with counter and 'scope

Current when toggling the output pin is measured with the pin unloaded.

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loop. Loop is 1) infinite waitcnt, 2) math operation, 3)

**SPIN** toggle output pin

| PUB main<br>dira[27..0]~~<br>repeat<br>---->      waitcnt(cnt+cnt)      result++      !outa[pin] |        |       |        |       |
|--|--------|-------|--------|-------|
| clkmode  | mA     | mA    | mA     | Hz    |
| RCSlow   | 0.0088 | 0.01  | 0.08   | 11    |
| Rcfast   | 0.756  | 2.16  | 2.329  | 7360  |
| xtal1  | 0.516  | 1.032 | 1.14   | 2690  |
| xtal1+pll1x  | 1.21   | 1.728 | 1.834  | 2690  |
| xtal1+pll2x  | 1.43   | 2.468 | 2.605  | 5388  |
| xtal1+pll4x  | 1.89   | 3.952 | 4.159  | 10776 |
| xtal1+pll8x  | 2.81   | 6.89  | 7.232  | 21552 |
| xtal1+pll16x   | 4.64   | 12.7  | 13.294 | 43100 |

counter in nco mode,  
either zero or fastest  
frequency

#### Counter + PASM waitcnt

| PASM      Starts a cog with same options as the SPIN version               |        |       |        |         | PUB main<br>cognew(@buzz, 0)<br>DAT<br>buzz<br>mov dira,dirs<br>----><br>jmp #\$-1         |         |       |          |
|--|--------|-------|--------|---------|--|---------|-------|----------|
| waitcnt X,#0      add X, #1      xor out,pin                               |        |       |        |         | #0   | fastest |       |          |
| clkmode  | mA     | mA    | mA     | Hz      | clkmode  | mA      | mA    | Hz       |
| RCSlow   | 0.0086 | 0.01  | 0.082  | 1284    | RCSlow   | 0.0087  | 0.08  | 10270    |
| Rcfast   | 0.762  | 1.73  | 2.455  | 849000  | Rcfast   | 0.808   | 1.628 | 679043   |
| xtal1  | 0.519  | 0.876 | 1.201  | 312500  | xtal1  | 0.536   | 0.886 | 2500024  |
| xtal1+pll1x  | 1.216  | 1.57  | 1.891  | 312500  | xtal1+pll1x  | 1.231   | 1.58  | 2500024  |
| xtal1+pll2x  | 1.441  | 2.15  | 2.719  | 625000  | xtal1+pll2x  | 1.472   | 2.098 | 5000048  |
| xtal1+pll4x  | 1.91   | 3.33  | 4.379  | 1250000 | xtal1+pll4x  | 1.972   | 3.145 | 10000096 |
| xtal1+pll8x  | 2.839  | 5.65  | 7.631  | 2500000 | xtal1+pll8x  | 2.962   | 5.241 | 20000193 |
| xtal1+pll16x   | 4.962  | 10.29 | 13.944 | 5000000 | xtal1+pll16x   | 4.937   | 9.132 | 40000386 |
| dirs long \$0xFFFFFFFF<br>pin long  <2      using logical pin 2<br>X res 1 |        |       |        |         | nco2 long %00100 << 26 + 2      using pin 2<br>fastest long negx<br>dirs long \$0xFFFFFFFF |         |       |          |