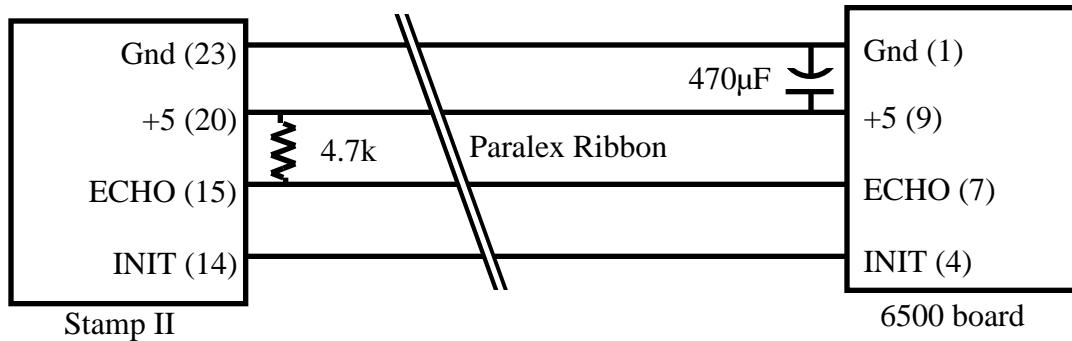


# Interfacing the Polaroid 6500 Sonar Board to a Basic Stamp II

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## Optional Modifications:

- Solder the pullup resistor directly to the Polaroid board to reduce the components on the Stamp carrier board.
- Use a 4-line stranded cable which allows better flexibility than the included Paralex Corp. 9-line cable.
- You may omit the capacitor on the 6500 board if the Stamp will use a separate power source. The capacitor smooths out the voltage drop which occurs when the 6500 board fires. Without it, the Stamp senses a brownout, and resets itself. Assure that the power supply you use can handle the 2 amp firing current of the 6500. A 4.8 volt Ni-Cad battery pack works well.

**PROTECT THE STAMP (AND OTHER COMPONENTS) FROM THE 6500 BOARD'S HIGH VOLTAGE LEVELS! The 400 volts generated at transmit can damage the Stamp. Don't touch bare metal on the 6500.**

```

TIMEOFFLIGHT var word
DISTANCE var word
ECHO con 15
INIT con 14
SETTLETIME con 1
CYCLEDELAY con 300

loop:

high INIT
  'see the 6500 app notes for timing info
  pause SETTLETIME

rctime ECHO,0,TIMEOFFLIGHT
  'waits for ECHO to go low,
  'which signals a return ping.
  'threshold is 1.4 volts.
gosub ECHORECEIVED

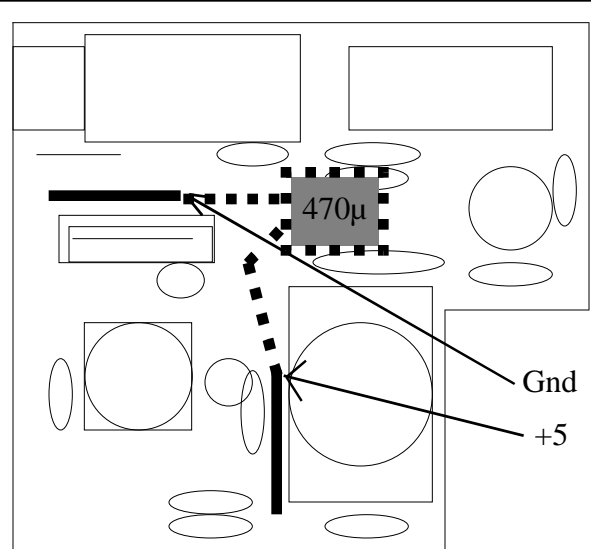
low INIT

pause CYCLE_DELAY

goto loop

.....
ECHORECEIVED:

DISTANCE = TIMEOFFLIGHT * 7 / 200 + 22
  'this conversion approximates centimeters,
  'accounting for the offset imposed by the
  'blanking signal generated by the 6500
debug dec? DISTANCE
  'print distance on screen
return
    
```



Suppression capacitor placement

