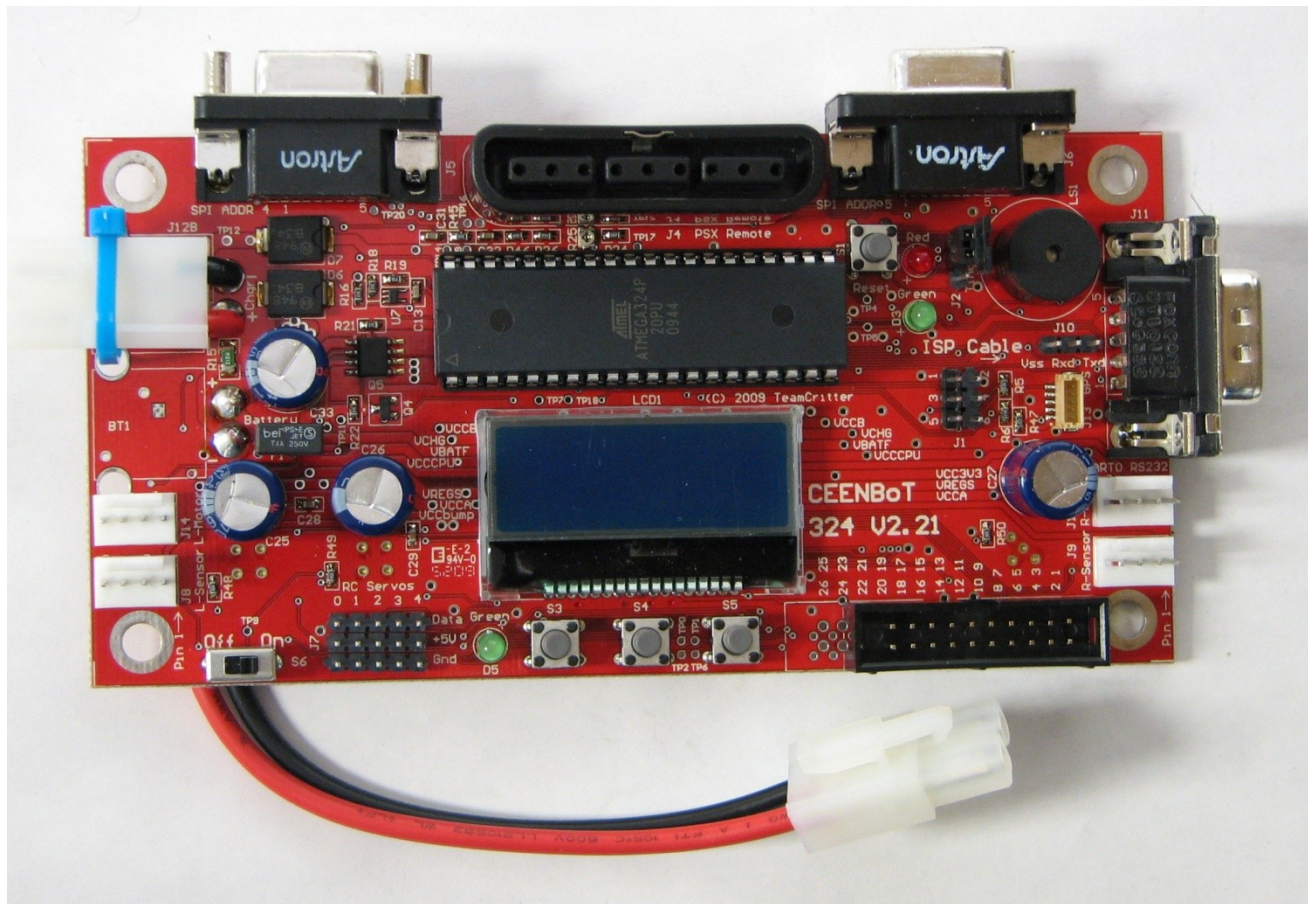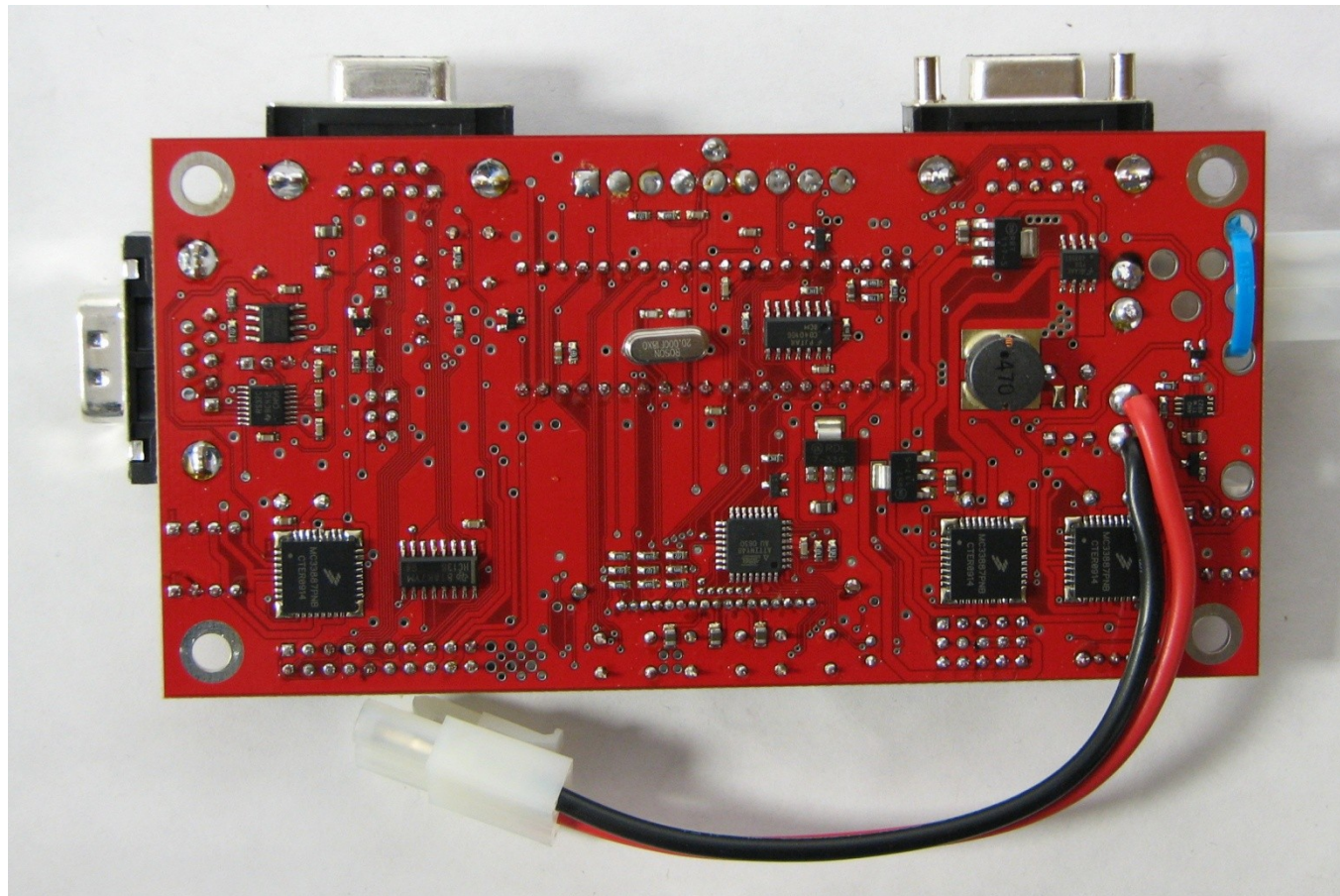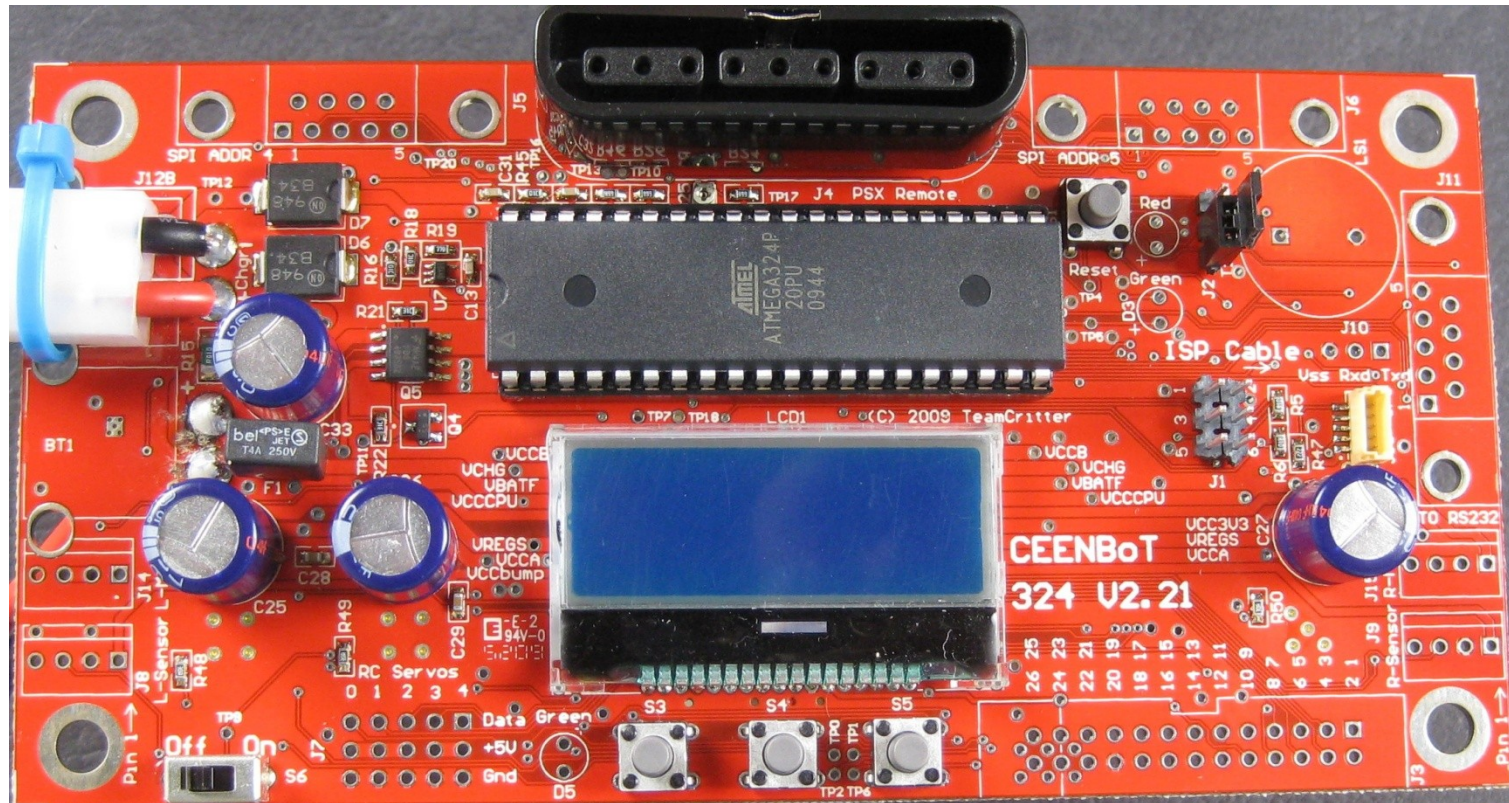# CEENBoT 324 Board

CEENBoT 324 Board

CEENBoT 324 Board
with only preloaded parts

CEENBoT 324 Board
Computer & Electronics Engineering

- If the Parts Map has not been printed, access it here.

- Sort all of your components placing them on the appropriate location on the Parts Map.

CEENBoT 324 Board
Computer & Electronics Engineering

- Assemble the circuit using the following step-by-step directions.

CEENBoT 324 Board
Computer & Electronics Engineering

- Always wear safety glasses when soldering and cutting component leads.

- Double check that you have the correct component and that is oriented correctly – it takes 15 seconds to check but 15 minutes to fix a mistake.
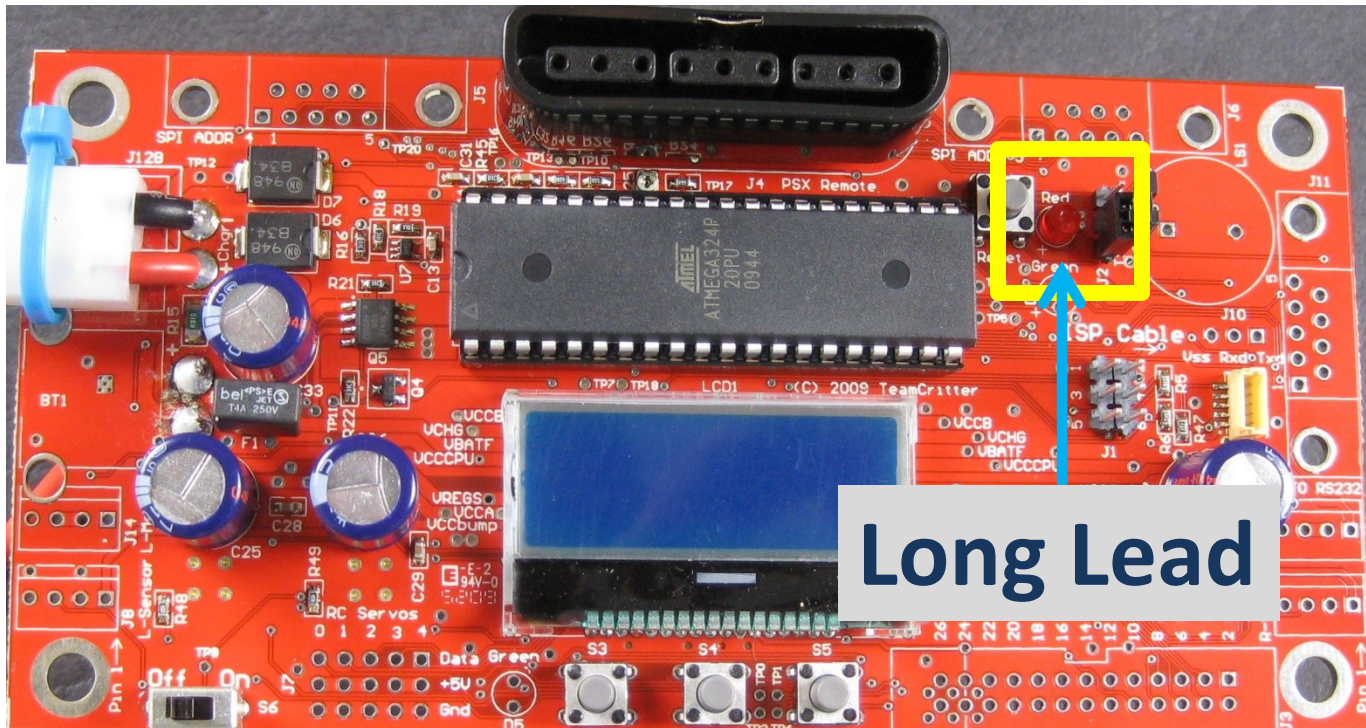
Insert the switches. The pin-outs are rectangular so there are two ways they can be oriented. Either way will work.
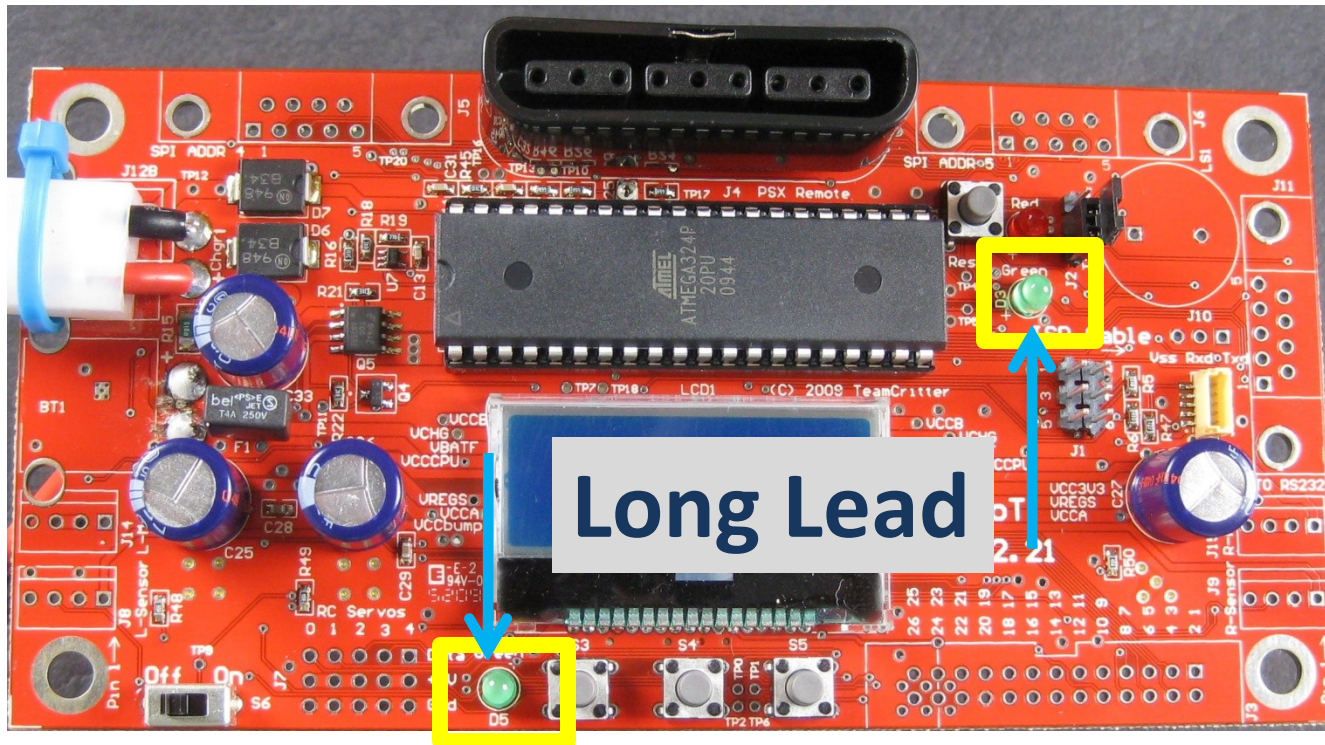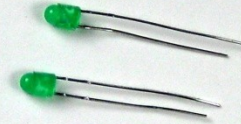

4: S1, S3, S5, S5
SPST Switch
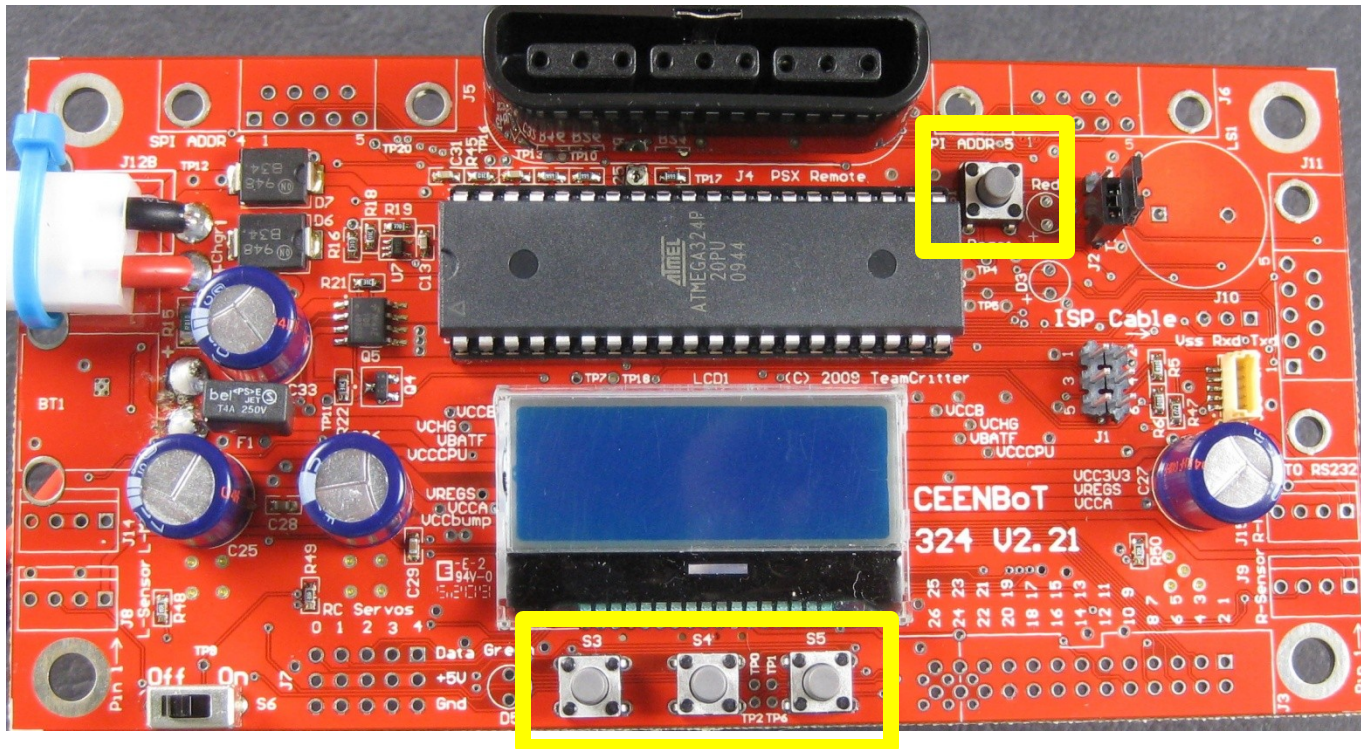
Insert the red LED. The longer lead goes into the hole with the + symbol. If you put it the other way, it won't work.

1: D2 Red LED
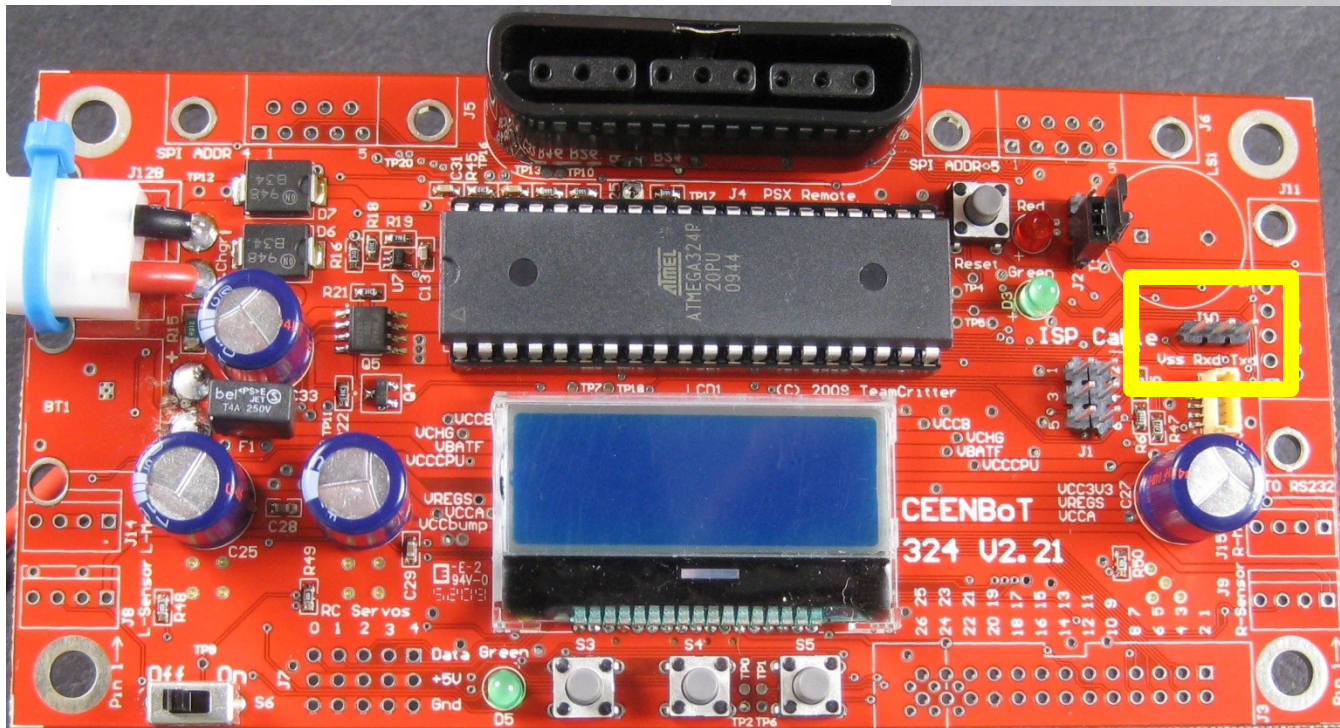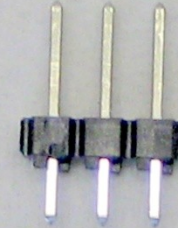Long Lead is +

Long Lead

Insert the green LED's. The longer lead goes into the hole with the + symbol.

2: D3, D5 Green LED
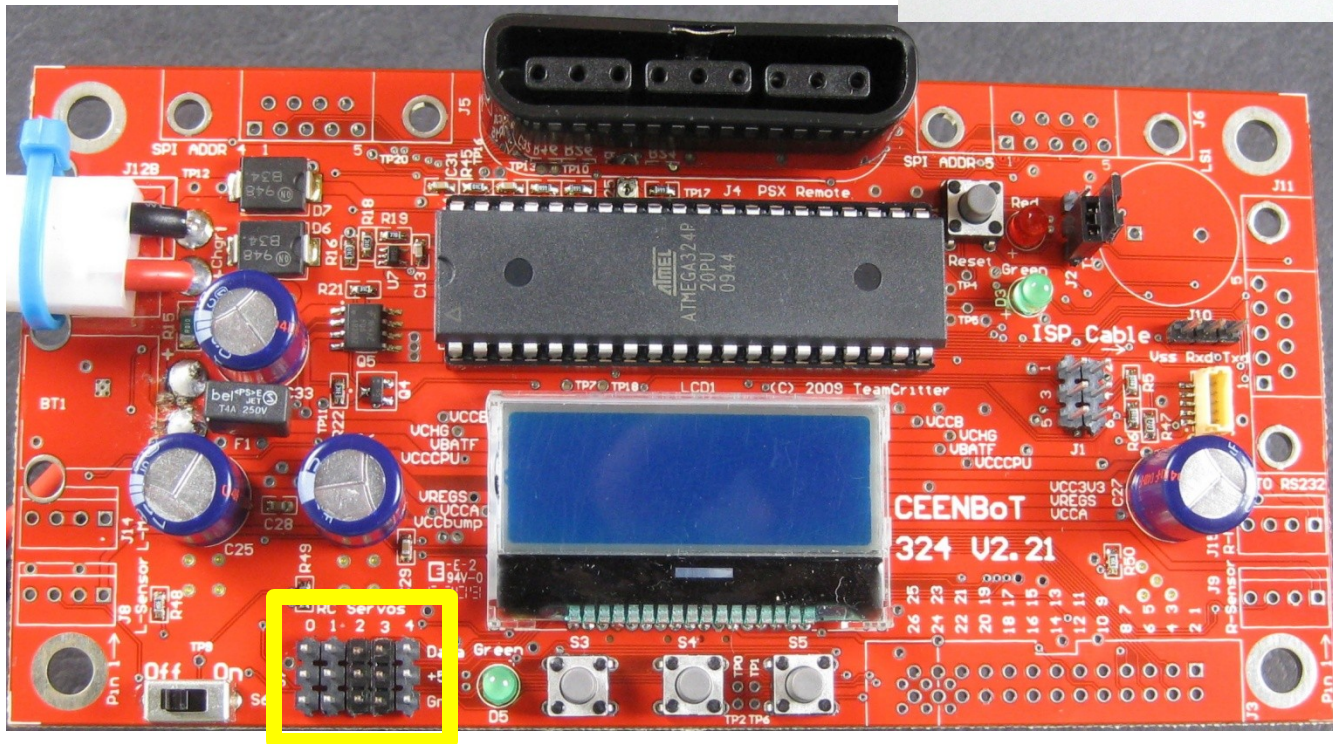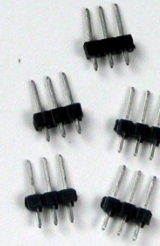Long Lead is +

Long Lead

Insert the 3 pin male header. **The short end of the leads goes into the board.** Only solder one pin. Check that it is seated properly and solder the remaining pins.


1: J10   1X3 Male Header

Insert the five male headers. See the next slide on how to keep them aligned while soldering. **Solder the SHORT end**.

5: J7 1x3 Male Header
Solder SHORT end

It is difficult to keep all pins parallel and vertical. Place a female header (the instructor will have some) on the middle row of pins. This will keep all pins aligned and you can use your finger to make sure they are seated properly and are vertical.
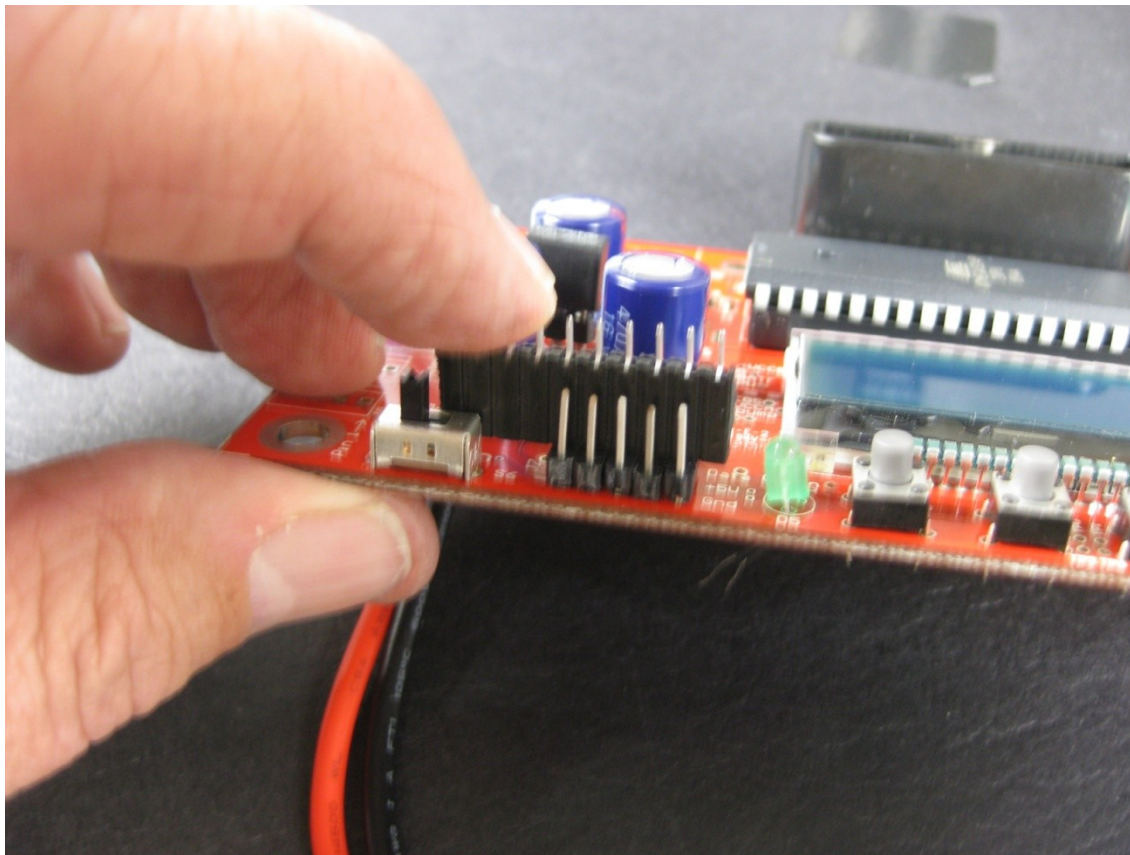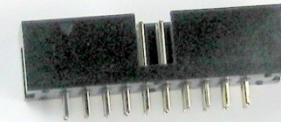
Insert and solder the male latched connectors. The short end goes into the circuit board. The white plastic lip aligns with the stripe on the board.
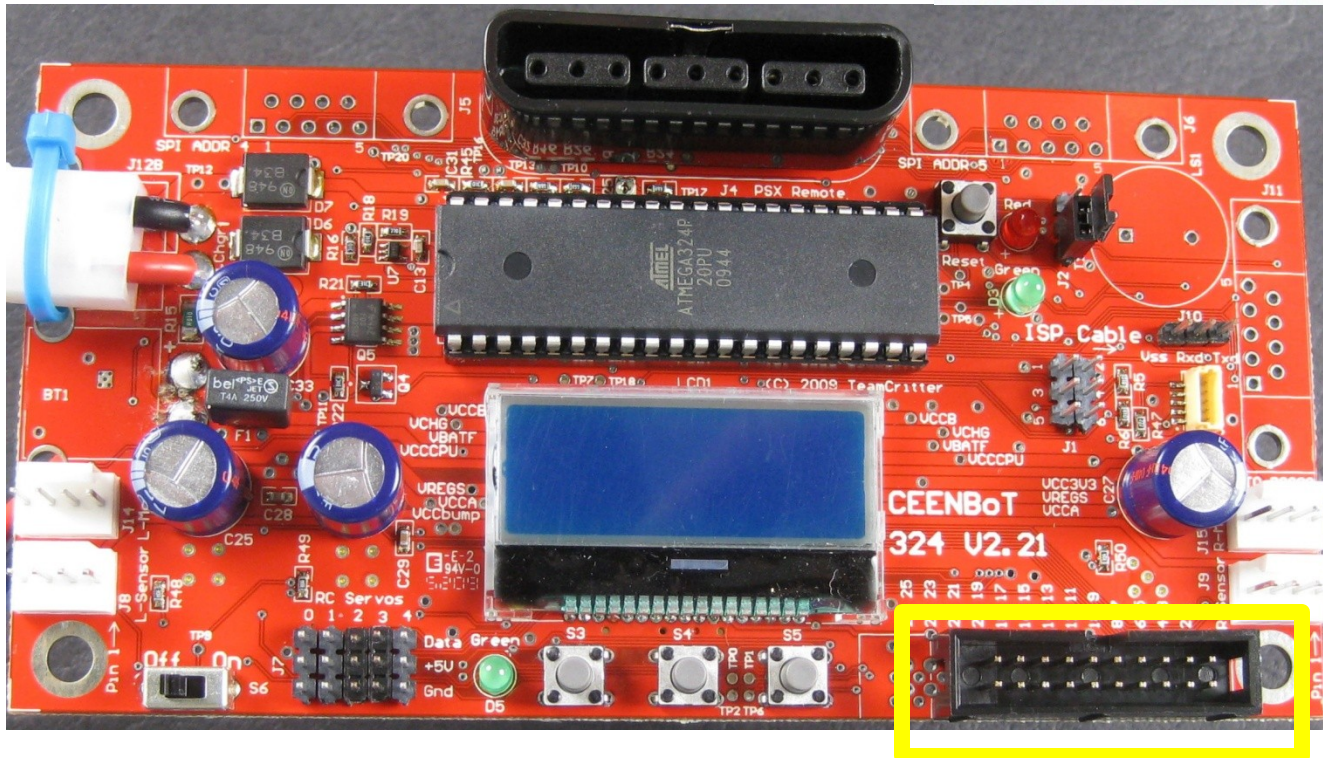

4: J8, J9, J14, J15 4 Pin Male
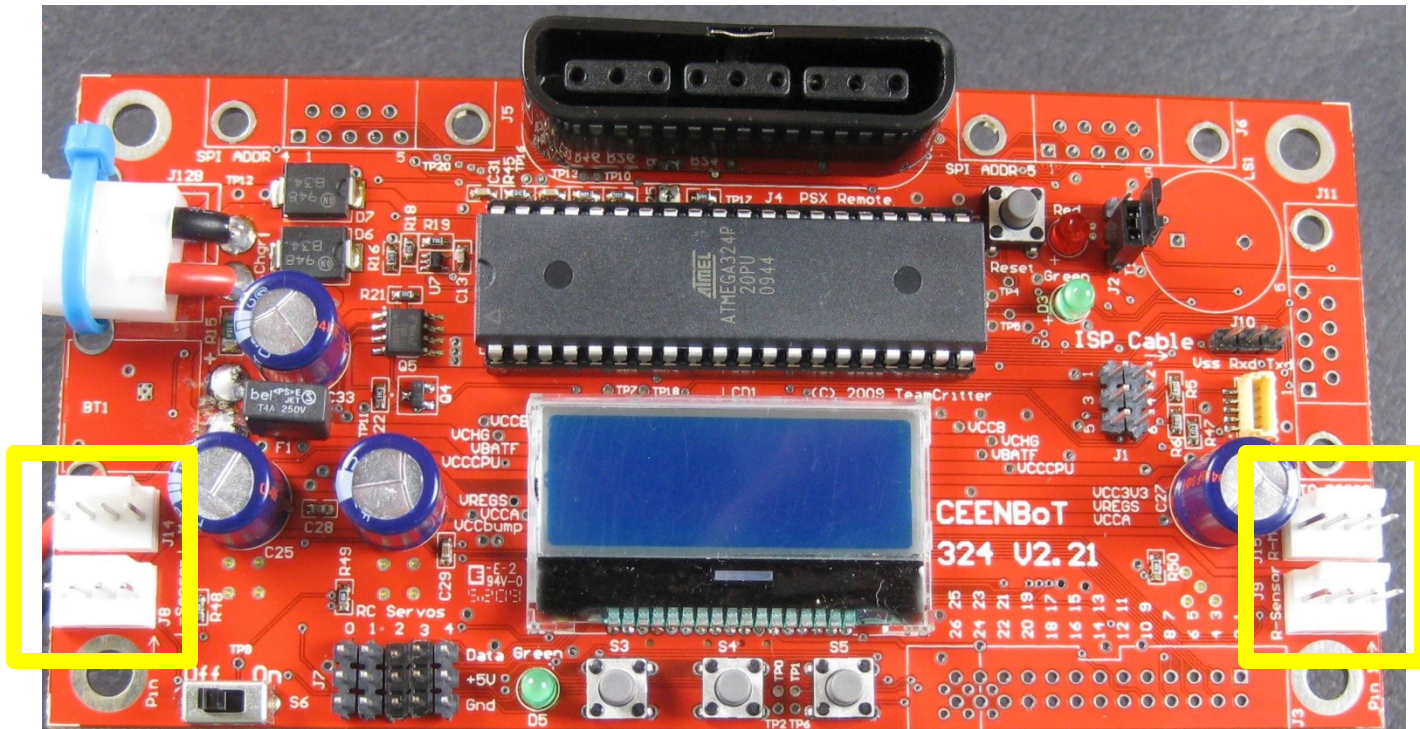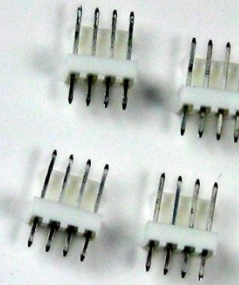
Insert the 20 pin male connector. Make sure that it aligns with the outline on the board, that the notch is toward the middle of the board and no pins are bent under.

1:J3 Male Connector - 20 Pin

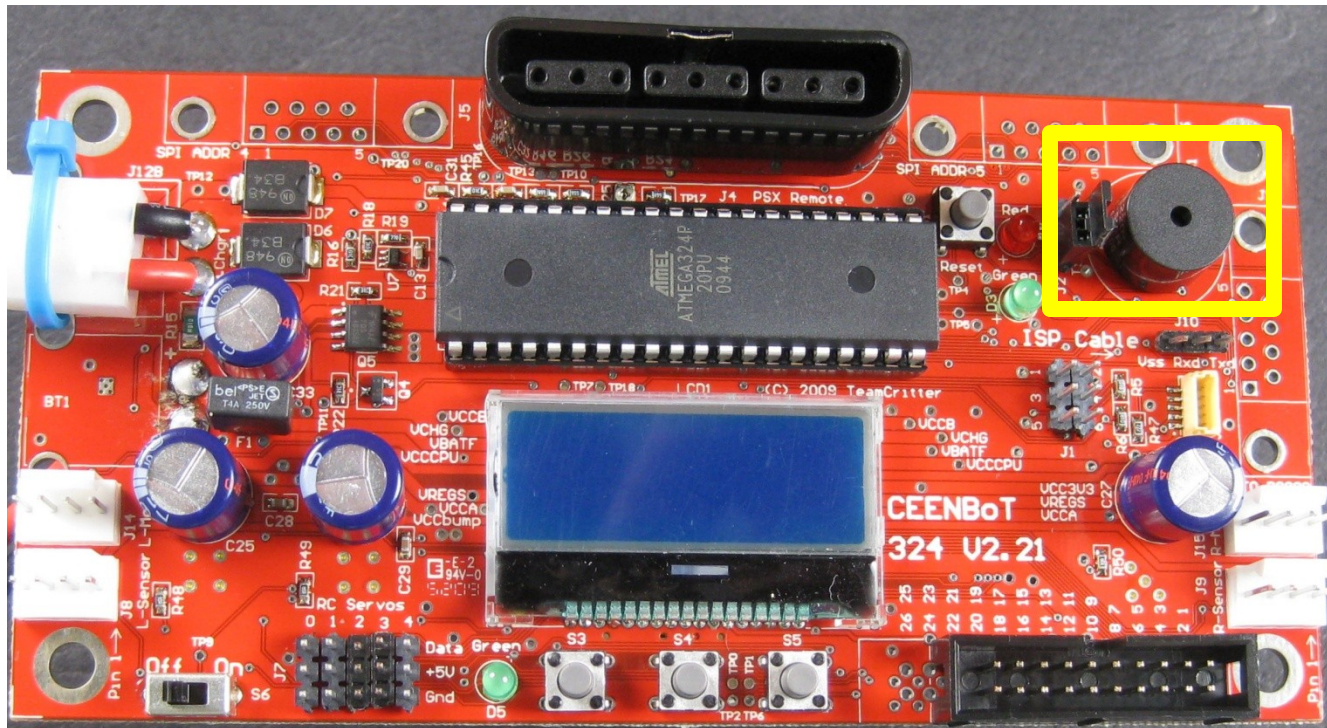Make sure to align with outline on board

Solder the speaker. The lead marked +
goes into the hole with the square pad.
You may need to spread the leads a
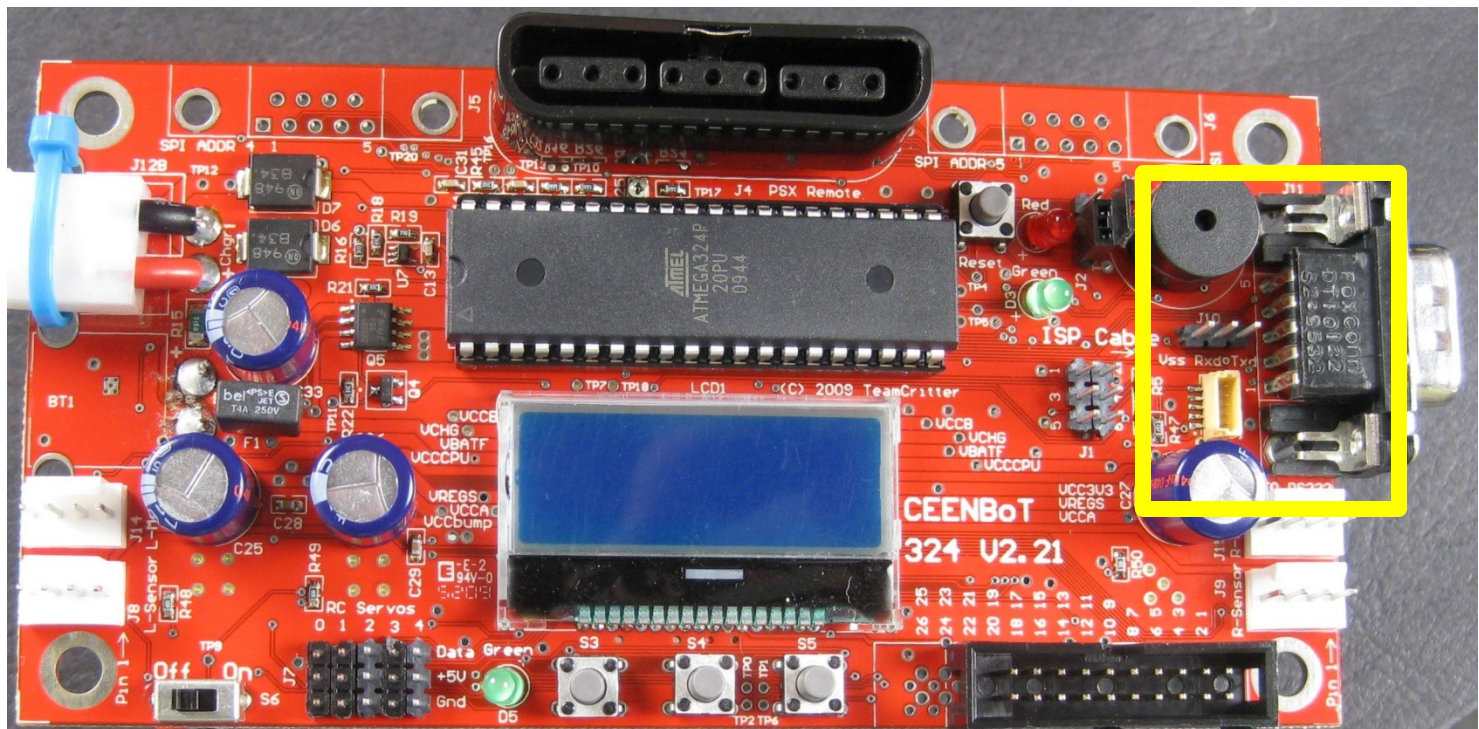little to make it fit.

1: LS1 Speaker

+ Lead goes in square pad

Inserting the DB9 connectors can be tricky. Make sure all pins are all straight before trying to insert them into the board. After the component is inserted, double check that none of the pins were bent over and that they have all come through the board.

1: J11 DB9 Male

Insert the two DB9 female connectors using the same technique used for the male connector.

2: J6, J6 DB9 Female
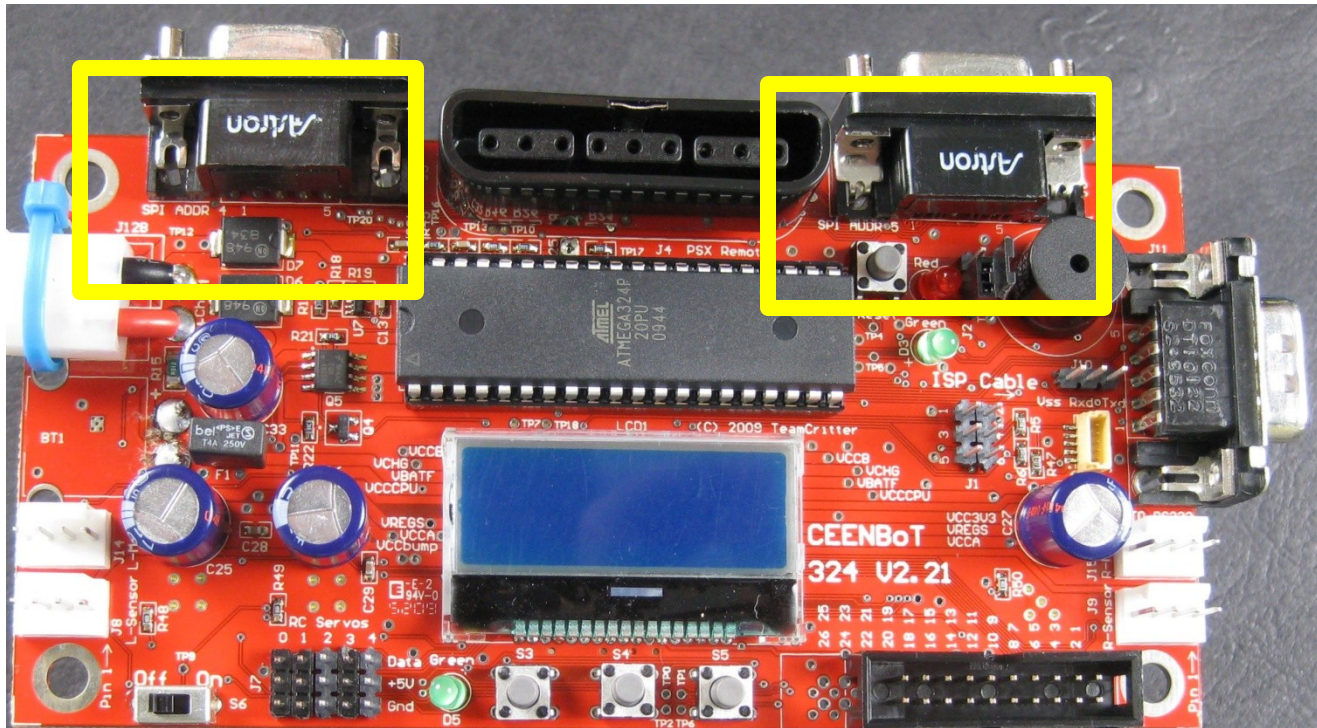
- Have the instructor check your completed board for any obvious soldering mistakes. He will also apply power to test it for proper operation.