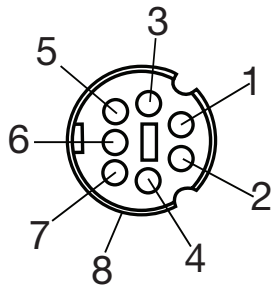


Create® 2 Serial to USB Cable Creation

1. Procure the following parts:
 - a. Cable with 7- or 8-pin mini-DIN cable on one end. One example is part number 10-00543 from Tensility International. Similar parts will work, too.
 - b. 5V serial to USB converter. One example is a FTDI TTL-232R-5V-PCB. There are a number of similar parts available, as well.
2. Connect the cable and the 5V serial to USB converter together. It is important to connect three wires: first, connect the grounds together. Then, the TX from Create 2 should connect to the RX of the 5V serial to USB converter. Finally, connect the RX of the Create® 2 to the TX from the 5V serial to USB converter. Optionally, connect the BRC pin from the Create 2 to the RTS pin on the converter.

If you are using the Tensility cable and the FTDI PCB, the connections should look like this:



Front Side

- Pins 1 and 2 are Create 2 battery voltage.
- Pin 3 is Create 2 TX.
- Pin 4 is Create 2RX.
- Pins 5 and 6 are Ground.
- Pin 7 is Create 2 BRC.

Note that the Tensility cable uses the opposite pin numbering convention as Create 2.

Cut and insulate the red, purple, yellow, and drain wires. They are not necessary for this project. Solder the black, brown, orange, and green wires as shown.

4 TTL-232R-PCB Connector Pin Out and Mechanical details



3. Test the connection. Plug the USB port into your machine and open a serial connection to the port which appears.
4. Plug the Create 2 into its charger.
5. Text should begin scrolling by regarding the charging state of the Create 2. If not, you may try a factory reset of the robot, which can be performed by pressing and holding the “Spot” and “Dock” buttons on the robot for ten seconds, and then releasing. If no text appears after this, something is probably wrong with your hardware.
6. Happy hacking!

Serial Baud Rates

	400 series	500/600 series
57,600 to start	X	
115,200 to start		X
Changes to 19200 with a	X	X
Changes to anything with [129]	X	X