CEENBoT Care
and
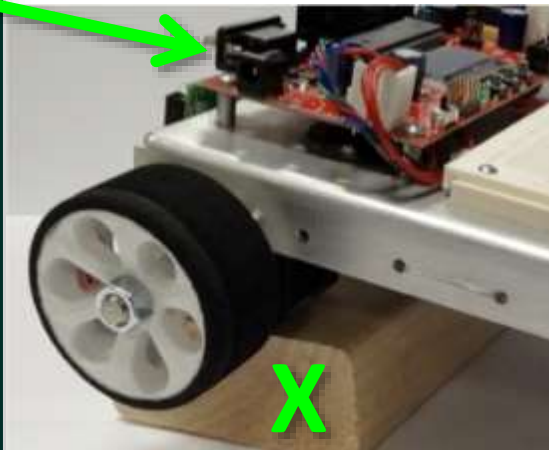# Troubleshooting Guide

CEENBoT Storage Check . . .

LONG TERM STORAGE

- Batteries out of Controller
- Receiver Off CEENBoT
- Unplug CEENBoT Battery (underneath)
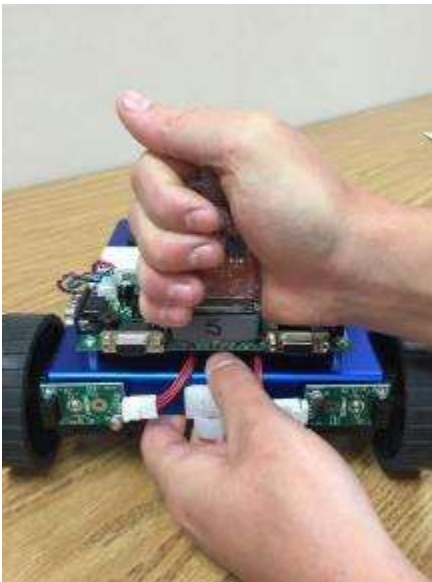- Cabinet Power Strips Turned OFF

(on or off CEENBoT)
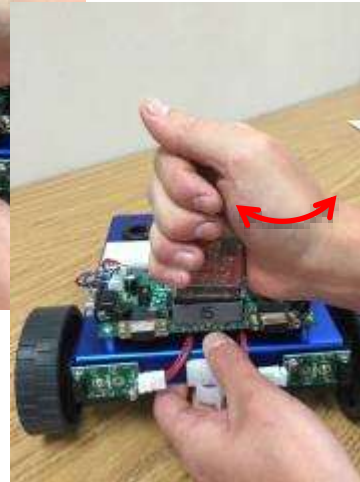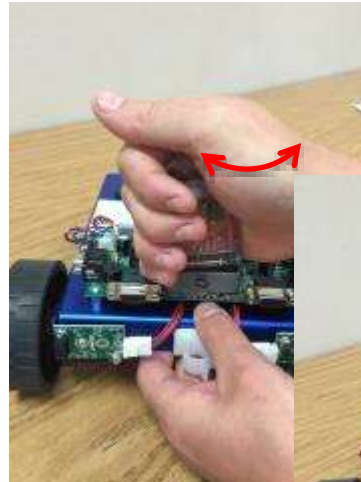
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Removing the Receiver . . .
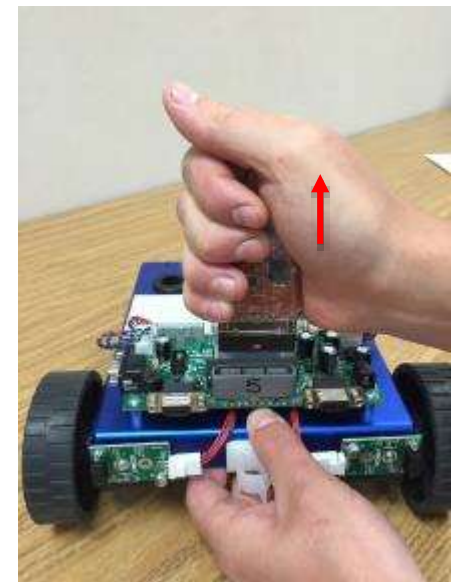
Remove before programming or up loading factory base.

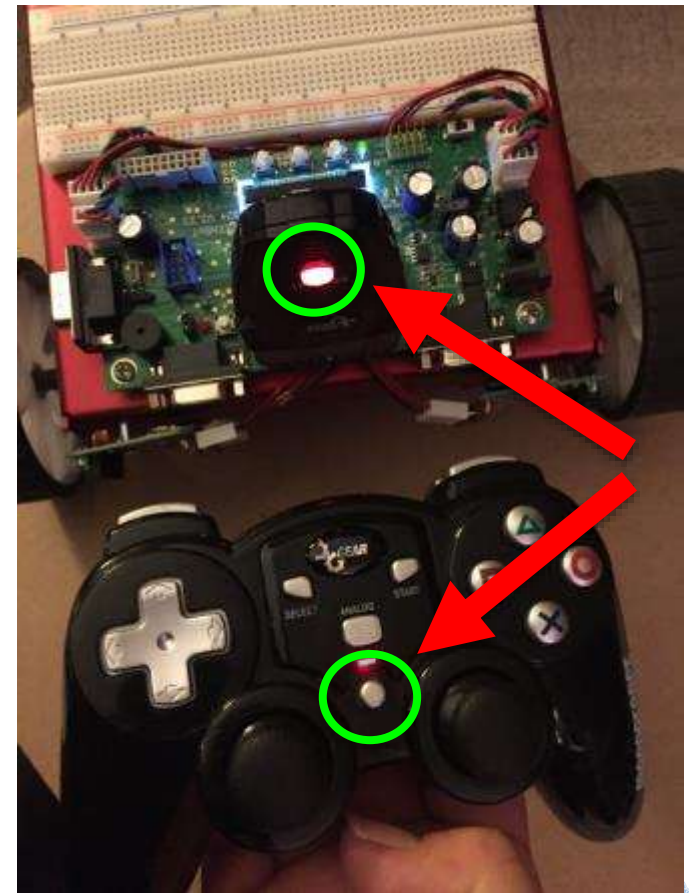One hand on Chassis, other on controller

Gently rock receiver back and forth

Lift up

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Troubleshooting Tips: Controller and Receiver

- CEENBoT goes into sleep mode
  - Receiver flashes slow = Sleep mode
    - reset by turning the robot and remote off then on

- CEENBoT does not move
  - Receiver flashes fast = Receiver and Controller are not communicating
    - Sync receiver to the controller
      - Turn off controller and robot
      - Turn both back on
      - Hold controller in front of receiver
        - Press the button on the receiver once so that it begins flashing quickly
        - Then. . . press <u>connect</u> button on controller

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Troubleshooting Tips: Random Moving

- CEENBoT moves/runs without using the joysticks
  - On Controller . . . Press "X"
- If one wheel is moving without input from the joysticks…
  - Turn controller off/on without touching joysticks
  - Reset controller and receiver connection, also making sure not to touch joysticks on startup of the CEENBoT

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Troubleshooting Tips: Controller

- Controller will not turn on
    - Check to see if battery has a charge by using the battery checker
    - Replace batteries if needed
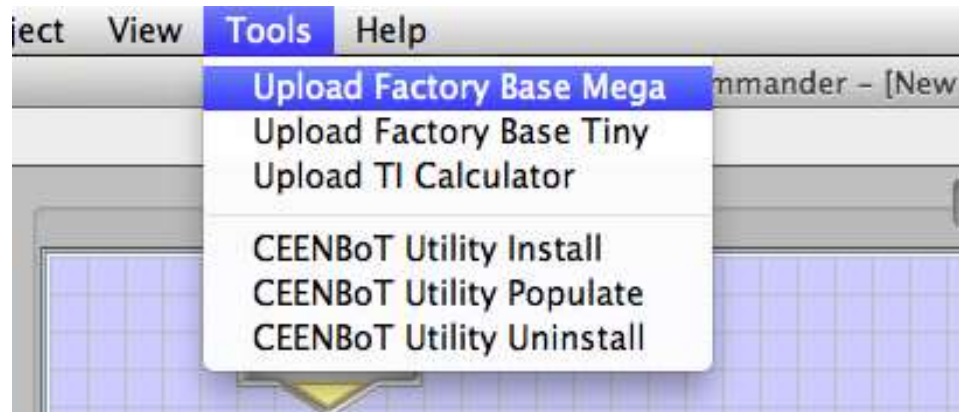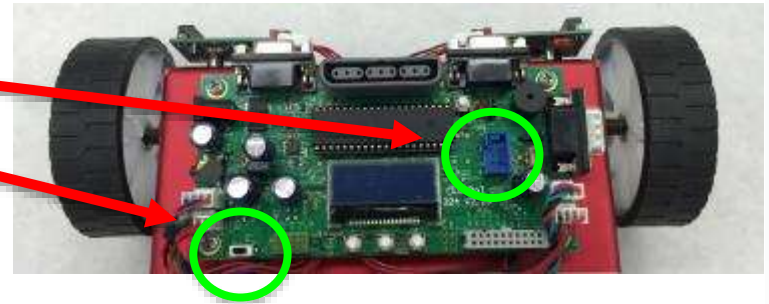   - Recharge drained batteries

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CEENBoT Factory Base Check . . .

- Factory base has been uploaded successfully when:
    - Turn on CEENBoT
    - Check LCD display for

- If not, restore by:
    - Upload factory base mega

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Upload Factory Base . . .

1. Plug in programming cord.
2. Turn CEENBoT on.
   (check - wheels propped up off surface)
3. On computer open CEENBoT Commander
4. Menu >Tools > Upload Factory Base Mega

ject   View   **Tools**   Help

Upload Factory Base Mega   mmander – [New D
Upload Factory Base Tiny
Upload TI Calculator

CEENBoT Utility Install
CEENBoT Utility Populate
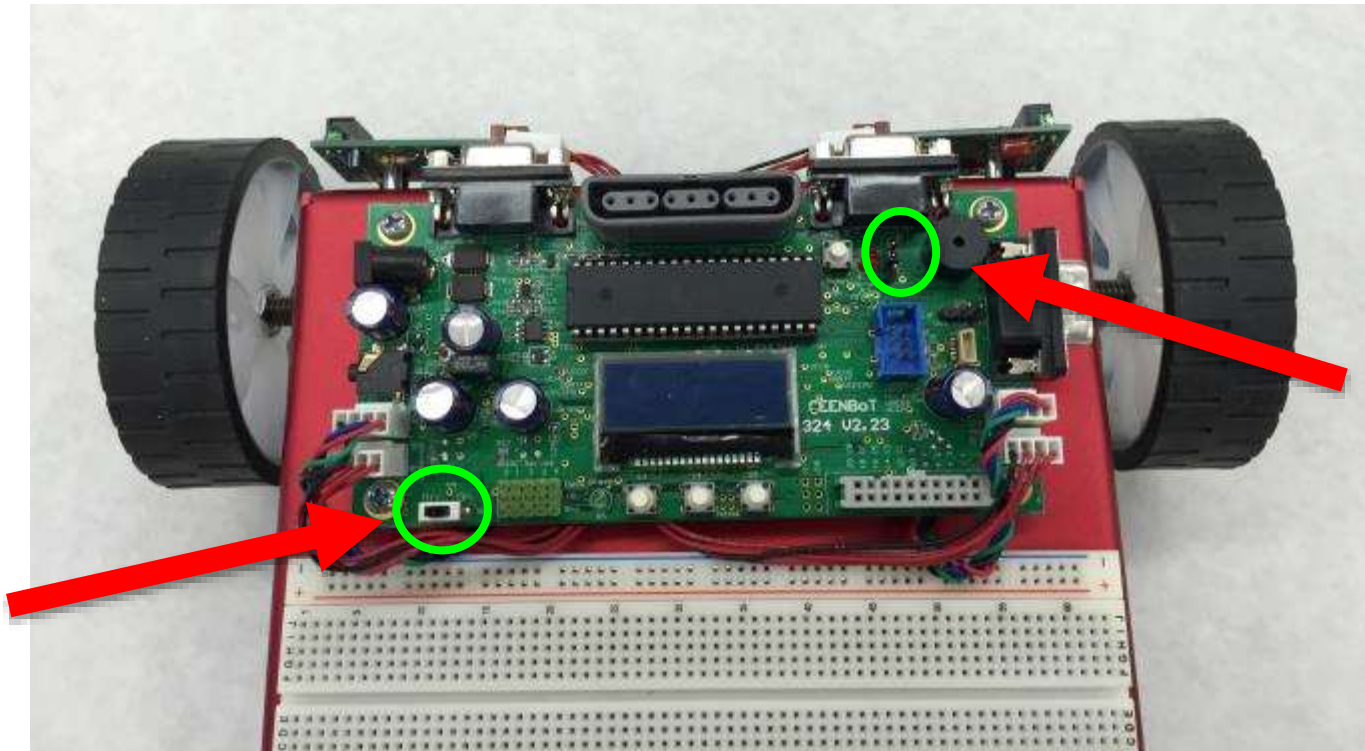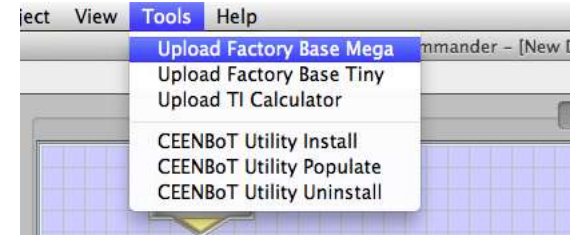CEENBoT Utility Uninstall

Upload Factory Base Mega <u>before</u> you start to program AND at end of class.

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This resets the CEENBoT to factory settings.
It also allows the CEENBoT to charge the battery and run the wireless controller.
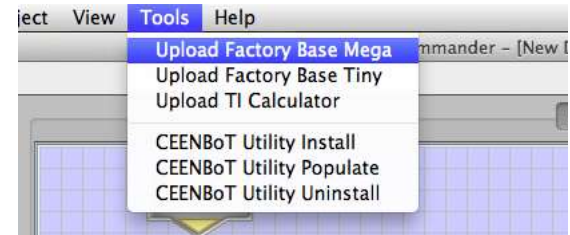
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Troubleshooting Tips: Factory Base

- If Factory Base Mega cannot be installed
  - On CEENBoT check:
    - Make sure CEENBoT is turned on
    - Tiny Mega – be sure jumper (black piece) is on Mega & Middle pin
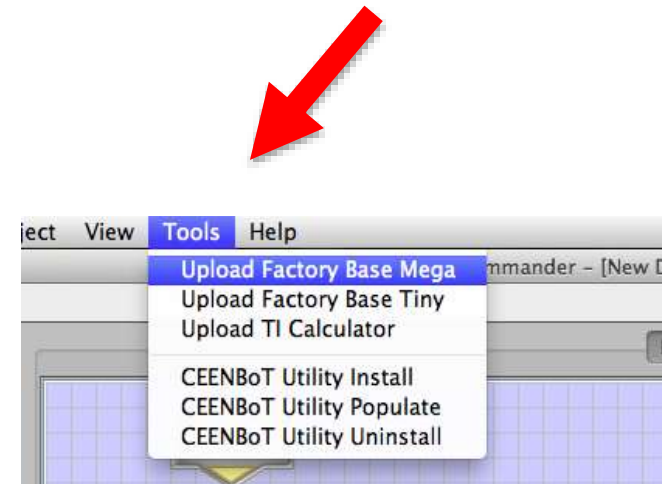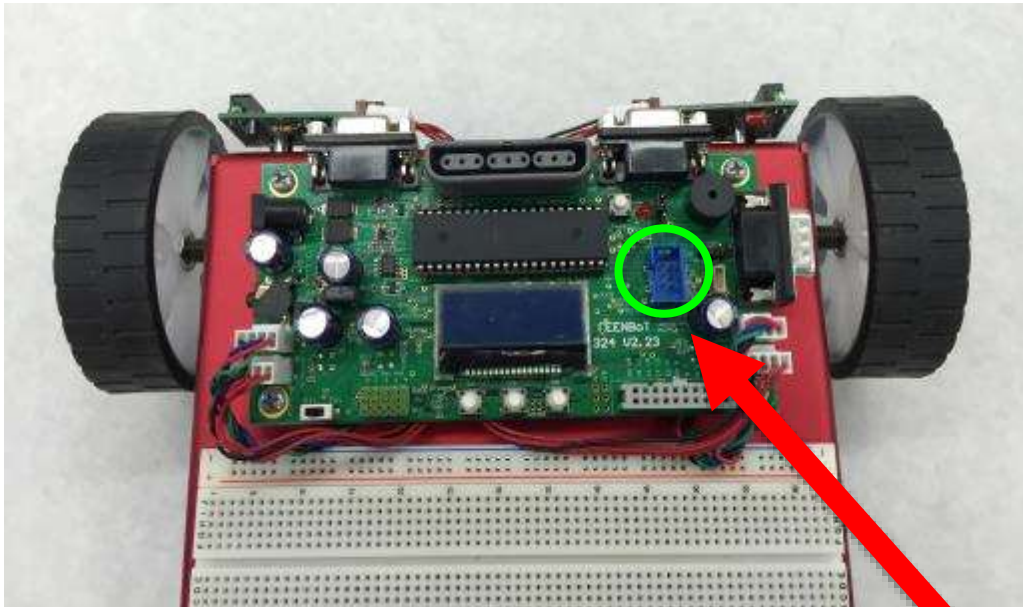

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Troubleshooting Tips: Factory Base

- If Factory Base Mega cannot be installed
  - AVR flashes red:
    - Make sure both ends of cord are plugged
    - Check AVR cord for damage or kinking (it will need to be replaced)
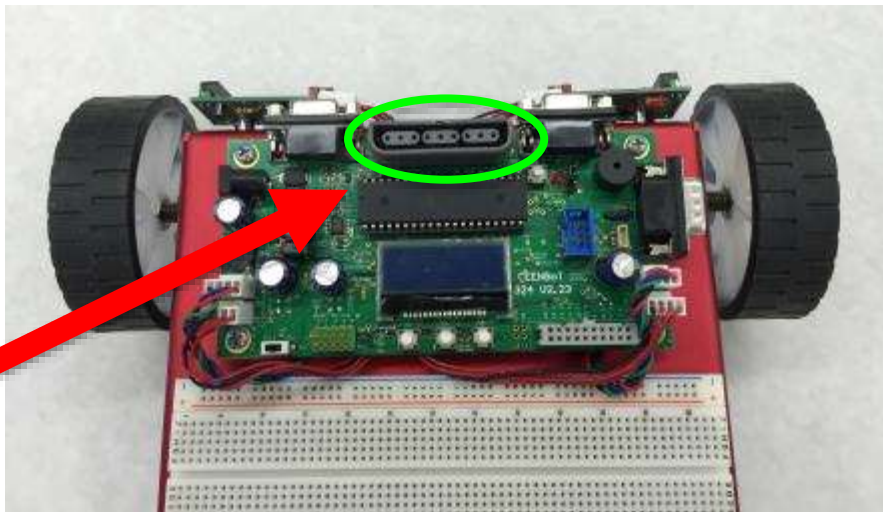   - Check 6 pin plugged into CEENBoT

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Troubleshooting Tips: Controller not responding

- CEENBoT will not respond using controller – restore firmware

    - On computer open CEENBoT Commander

    - Plug programming cord USB into computer

    - On CEENBoT plug in programming cord

    - Use CEENBoT Commander and restore firmware to Factory Base Mega

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Troubleshooting Tips: Reset

- When CEENBoT is turned, wheels begin to move

    - Or if wheels move differently

        - try to reset by turning off robot and controller

            - Count to 10 and turn both back on

- If that does not work, do a full reset

    - Remove receiver and turn robot over

    - unplug battery, count to 10, plug back in and turn on

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AVR Fix

- Occasionally the AVR programmer will stop working. The majority of the time this is due to the ribbon cable going bad, but this can easily be fixed.

1. First you need to detach the USB cable from the AVR Programmer.

2. Flip the Programmer over and you will find that there are four tabs at each corner.
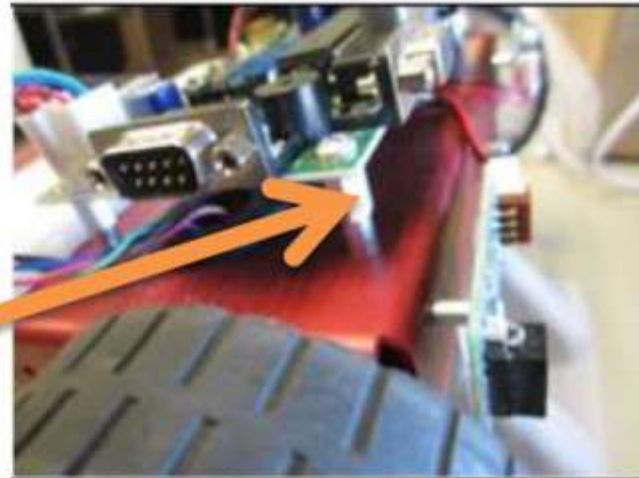

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AVR Fix

3. Using a pointed object, like a pen/pencil, push each tab back until the back lifts off completely.

4. The ribbon cable attached to the AVR the same way it attaches to the CEENBoT, via a 6-pin connector. Detach and replace with new cable.

5. Repeat process in reverse to reassemble.

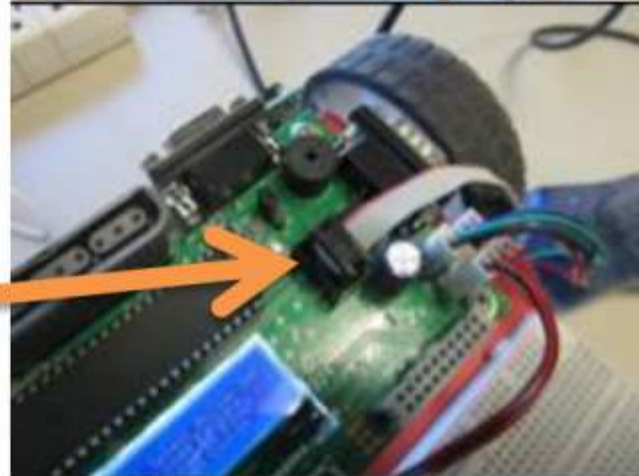6. [Link](#) to purchase:

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CEENBoT Utility Add-On

1. Be sure that you have the latest version of CEENBoT Commander, version 1.5.x installed on your computer (either Macintosh or Windows).
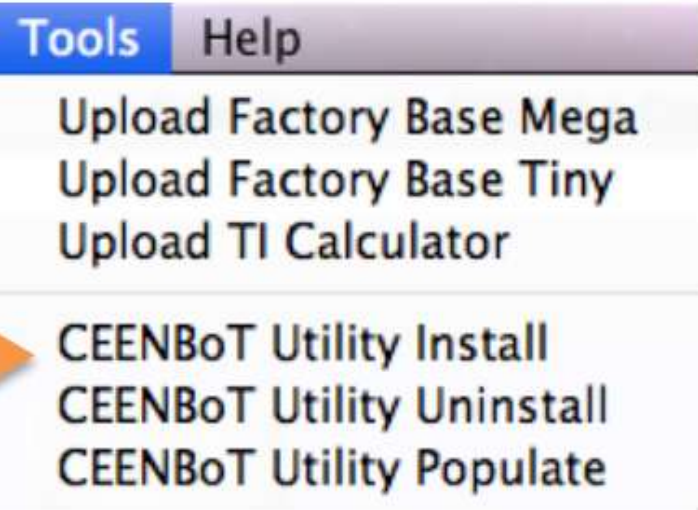
2. Add stand-offs to your robot under the board in order to raise the serial connector higher than the wheels. This will enable you to easily attach the "Cool Gear" cable.

3. To add the new Firmware software to your CEENBoT, first plug your AVR programmer into the robot.

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4. In CEENBoT Commander, go to the Tools pull down menu and select <u>CEENBoT Utility Install</u> to install the new Firmware on your robot. This will take a few moments.
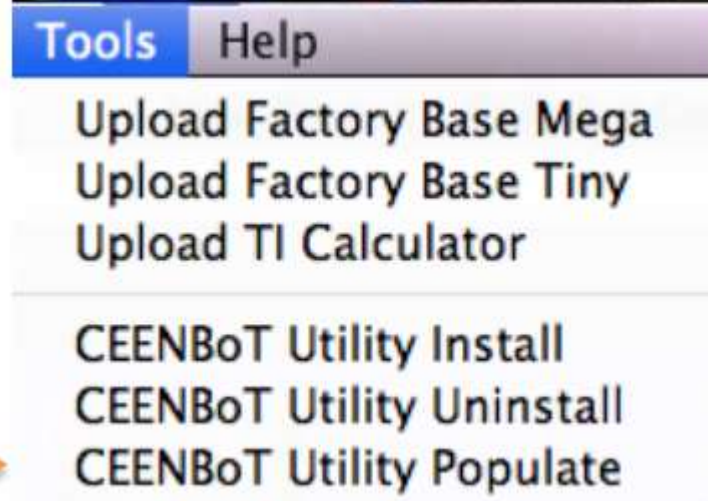

5. After downloading, your robot will restart, and have a different startup sound and image appearance on the LCD panel.
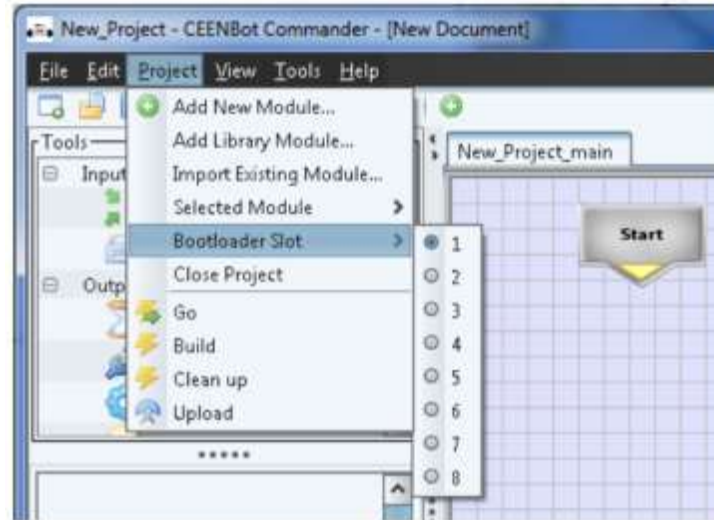

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6. Put your AVR programmer away, and plug your new "Cool Gear" programmer into the serial port on the right side of your robot above the wheel. (it should include a gender changer) Plug the USB end into your computer.

7. Go back to Tools pull down menu and select <u>CEENBoT Utility Populate</u>, and install it. After a few moments your robot will restart. You will be ready to program your robot.

Tools   Help

Upload Factory Base Mega
Upload Factory Base Tiny
Upload TI Calculator

CEENBoT Utility Install
CEENBoT Utility Uninstall
CEENBoT Utility Populate

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8. There are not 8 slots to load different programs. Pick the appropriate slot for your program to not write over a program that already exists on your CEENBoT.

9. New interface to pick your options.

10. If you pick "Load Custom" you will get this image.

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