HERO JR ROBOT

BATTERY UPGRADE

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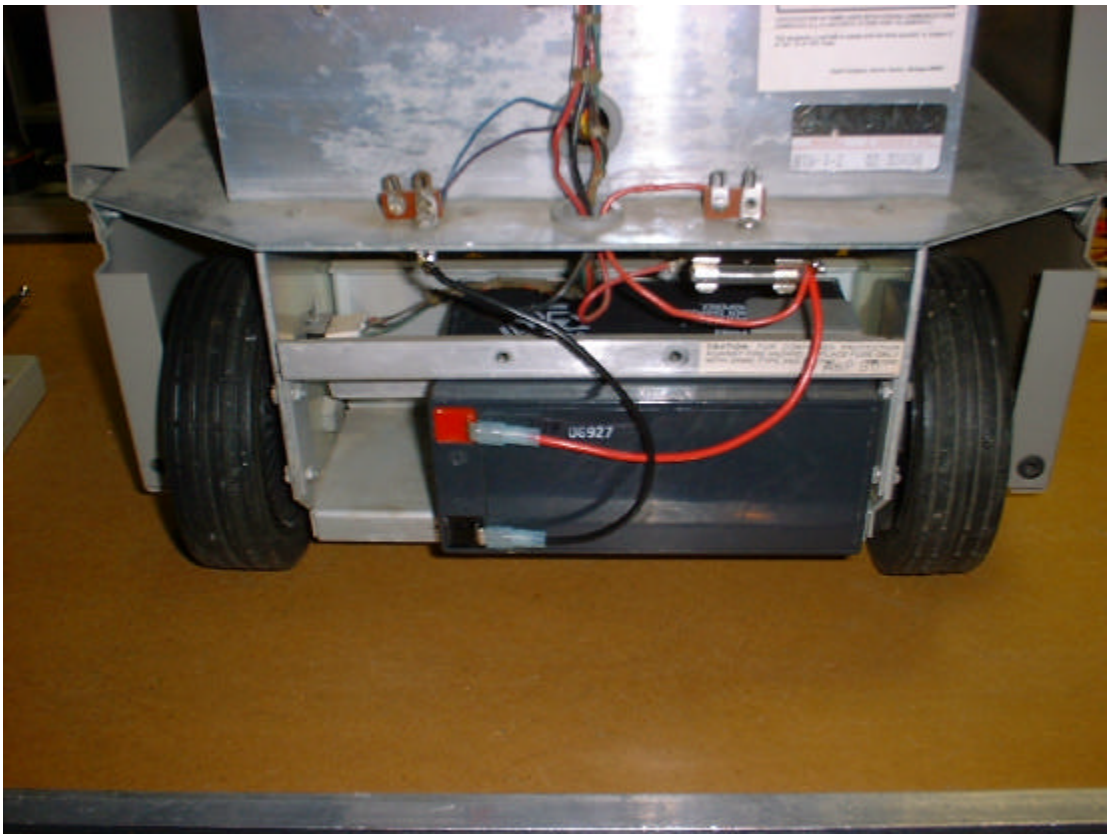
Single 12v 7ah battery



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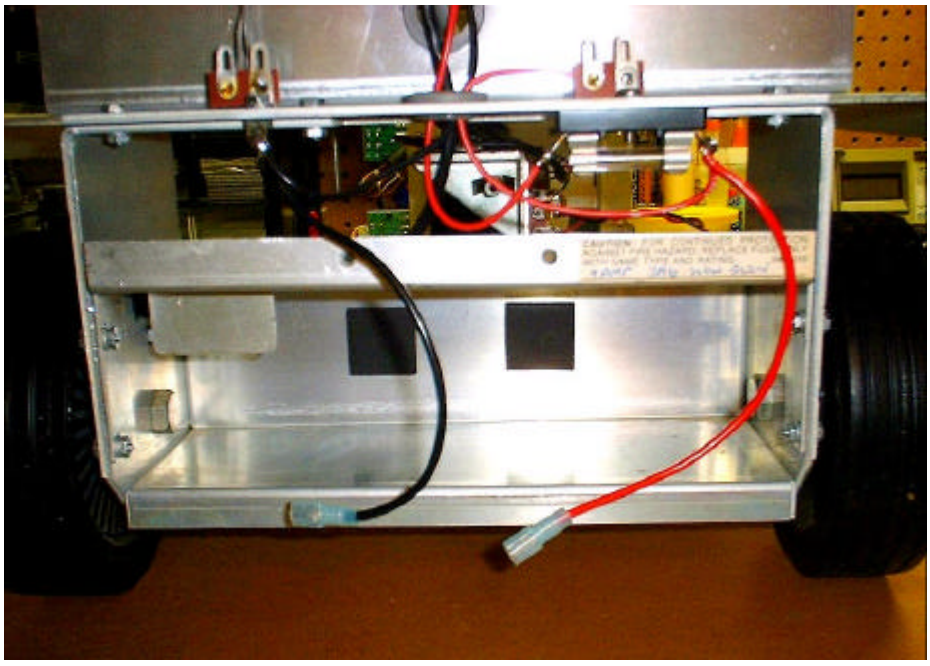
INTRODUCTION

The HERO Jr robot was originally equipped with a pair of 6v 4ah batteries. They are connected in series to act as a single 12v 4ah source. There was also an optional battery upgrade that added an extra pair of 6v batteries in parallel to double the Amp Hour capacity and the run time of the robot. The original 6v battery is an odd size which is difficult to find and expensive to come by. An excellent replacement alternative is to replace the original pair of 6v batteries with a single 12v battery of a standard size. The new battery has almost twice the capacity of the original batteries and acts as if the robot had the optional batteries installed. This will greatly enhance the run time of your robot if it did not have the extra battery option.

INSTALLATION

The installation of the new battery is very easy. You should have the following tools available: (straight and phillips screwdrivers, diagonal cutter, needle nose pliers, soldering iron, 60/40 Rosin core solder, and some patience.) Be sure to turn off the robot and unplug the charger if connected. The most time consuming portion of the installation is the replacement of the original battery leads since the original ones are too short. To proceed just follow the directions below:

- ❑ Remove the front body panel.
- ❑ Unplug the two power leads (RED/BLACK) and the white jumper wire across the two batteries.
- ❑ Remove the two screws and retaining brackets the hold down the batteries.
- ❑ Remove the two 6v batteries. **Please recycle your old batteries!**
- ❑ Unsolder and remove the old RED and BLACK battery leads. One of these is attached to the fuse holder and the other to a ground tab.
- ❑ Install the new longer RED and BLACK battery leads. The RED wire attaches to the fuse holder and the BLACK wire attaches to the ground tab on the chassis. (See picture below)



NOTE: You will notice two aluminum tabs that hang down into the battery compartment to keep the original batteries centered. In order to allow the new battery to be installed the one tab on the right (as viewed from the front) needs to be bent up out of the way. This can often be done by hand.

- ❑ Bend up the tab in the battery compartment next to the wheel *without the encoder*. It only needs to be level with the rest of the bracket to allow the larger battery to slide in place.

- ❑ Slide the new 12v 7ah battery in the battery compartment. It is a snug fit. If you have trouble getting the battery to fit you can loosen the four screws holding the bracket and tighten them again once the battery is in place. Orientate the battery so that the connections are on the left (as viewed from the front)

- ❑ Install one of the original battery hold down clamps in the position on the right (as viewed from the front) away from the battery connectors. This clamp may need to be bent slightly to apply a little pressure on the battery and keep it from shifting.

- ❑ Connect the RED lead to the positive connector. (Usually on the top)

- ❑ Connect the BLACK lead to the negative connector. (Usually on the bottom)

This concludes the Assembly procedures for the HERO Battery upgrade. Congratulations!