

# Nomad Construction Tips / Updates

1. The Parallax servo controllers on page 8 and 9 can also be mounted on the top deck and secured with a single #4 screw. This also makes for easier access to the PSC controllers when connecting the servo wires to them. We have updated the Nomad HDATS kit with all 12” servo extension wires for this purpose should you decide to use this installation option for the PSC’s.

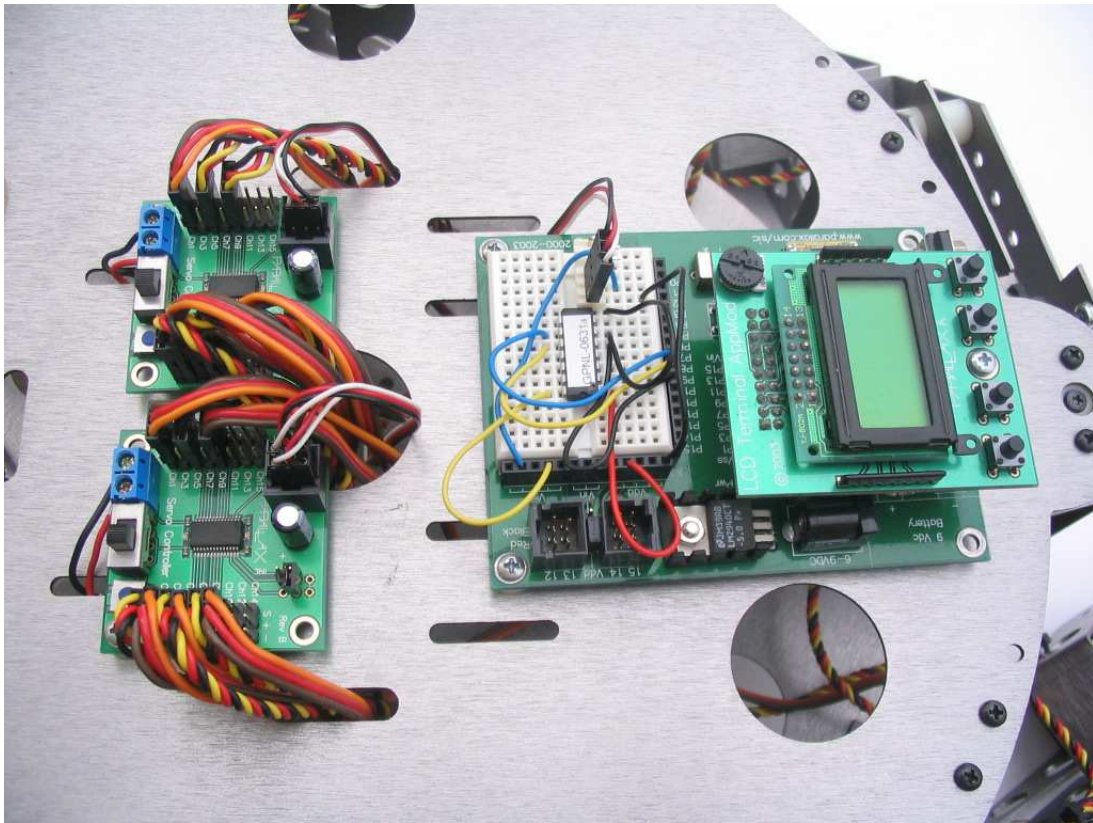


Figure 1 - Top Deck Mounted PSC's

2. The pivot point chosen when attaching the leg assembly to the servo holder using the #8 screw is critical to the servos you have with your kit (pages 36 and 37). It is recommended that either of the last (2) holes located towards the end (right side – see figure 2 below)) of the servo holder be used with most analog servos (Hitec HS475 and HS645 servos). All other pivot points are to be used with high torque, digital servos only (such as the Hitec HSR5995TG or HS5955TG). Do not use the pivot point illustrated on pages 36 and 37 unless you are using the digital servos listed above.

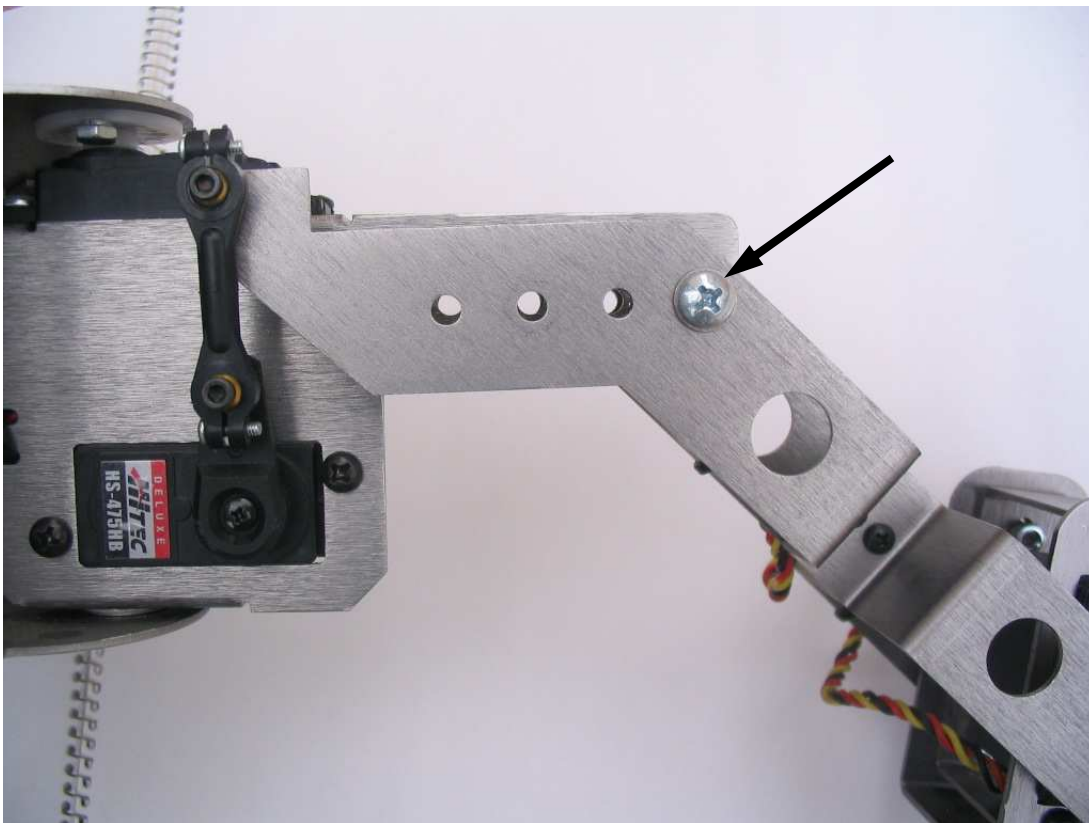


Figure 2 - Pivot Point Selection

- **Note:** When installing either a Hitec HS475 or HS645 servo (as illustrated on page 10 step 4) to the servo holder, it is also necessary to install #6 lock washers BETWEEN the servo and the aluminum servo holder (1 lock washer per screw). This will ensure proper clearance tolerances of the servo arm during the leg lifting cycle of the walking sequence.

3. If you plan on programming the Nomad HDATS walking sequences on your own, page 39 and 40 provides only (1) option of connecting the servos to the PSC controllers. Programming a robot of this complexity can be a daunting task. We have made it easy by providing the walking code sequences for you using the “GaitPic” chip enclosed with your Nomad HDATS kit. We highly recommend that you use the “GaitPic” chip and follow the assembly instructions when wiring your kit for the first time.
4. Our web site ([www.Crustcrawler.com](http://www.Crustcrawler.com)) contains the latest code using our new “GaitPic” chip. Please refer to our web site for the latest code updates.
5. Page 27, figure 20. We have replaced the rubber bumpers with a larger more adhesive type of rubber bumper. Secure them with the #4 ½” screw, lock washer and nut.
6. The 6v 4amp (servo power) and the 9v 500ma (Parallax Board of Education power) power supplies have been provided in your kit to provide you with the convenience of powering the Nomad HDATS during programming and testing without the use of batteries. Placing a box under the Nomad that is smaller in diameter than the Nomad HDATS body is ideal to ensure leg clearance during operation and testing when using the power supplies.