# Servo Tuning and Setup Notes

# Mach Parameters

* Shuttle Accel to 0.0001” or as low as possible.

# Runner440’s final setup parameters:

# x acceleration 10 y acceleration 10 z acceleration 08 x top speed 120 y top speed 120 z top speed 110

* Cruiser uses accels of 9 on x,y and 7 on z

# Tuning

* Cruiser: Turn gain and damp down. Turn up gain until it moves smoothly, turn up damp until it sounds like the brakes are put on when you reverse direction, then back of damp until it is smooth and quiet. Too tight (too much gain) = growling.
* Kabibble: Start with gain and damp at 10 o’clock. Jog back and forth rapidly, increasing both gain and damping until the motors growl when stopped. If gain is too low, the axis is too quiet when stopped. It too high, it makes constant noise when stopped. If too little damping, it will oscillate or fault on rapid accel. If too high, response is slow and you can’t accelerate without faulting.
* TomCaudle: Turn current limit full up and set gain and damping to 11 o’clock. Turn the gain up until it gets unstable. Turn it back down and advance dampening slight, then turn gain up to instability. Keep walking up until yo get to a point of good stiffness. Run the axis through several rapid moves with direction change.