

Date: 9/1/2016 4:08 PM

1. Fitting attachment issue
 - a. size constraint on the mill and safety
 - i. Dr. Liu less focused on drilling
 - b. Focus more on milling
2. Customer requirements look good
 - a. Needs high cross sensitivity
 - i. Load increment in one direction then you won't see it in the other (opposite) direction
 - ii. Calculate the natural frequency,
 1. Dynamic loading with for flutes
 2. Dr. Liu: 70 Hz load frequency for 4 flutes (approximation), make sure the frequency is outside that range
 3. 5 flute and 6 flute is ideal for cutting steel and high strength metals
 - b. Calculate the inertia and centrifugal force
 - i. See if hardware is damaged by centrifugal force
 - ii. Weight shouldn't be too much of a problem according to elbert
3. PVDF's:
 - a. Strain gauges or PVDF's? Look into other options?
 - b. Dr. Liu is very familiar with the author and asked him
 - i. The PVDF is cheap but they are better at catching the dynamic load, does not work well with static load. Would be bad to use with climb cutting
 - ii. Go back to the paper to see why PVDF's is different from strain gauges (in the intro they discuss the differences a bit)
4. Can we use a picture of Dr. Liu?
 - a. Yes
5. How do you want the axis defined for the device, table? Work Material? Cutter?
 - a. Z axis needs to be along the cutter, the other 2 (X and Y) and they don't matter, but the X Y axis should rotate with the Z axis