

5-29-90

Mtg w. Dr. Todd  
~ 10AM - 12AM

Prelim Specs : A.C. Servo - 6 Axis

-  $\pm 1$  mm Accuracy - Honest. -  $\pm .039$

(HDX wrist  $\pm 45^\circ$  - Push Pull)

- 6' / second end effector speed (4ft/sec)

- 15# payload max - typically 6-7#

- 360° Roll - in 1 second (2 seconds)

currently 30# lbs - should be 60-90

- Axis 4 & 5 - 180° - 1 second - should be 60-90# lbs

(see Frank 6.2:1 & 7:1)

- Locate 3 motors on REAR of Arm.

- Motoman motors ? Tom Schmidt - Yaskawa - <sup>Troy Ohio</sup> 2's comp  
 $\pm 32,000$  arith.

- Resolvers are 12 bit

- We work with 16 bit (store) - can go to 24 bit  
on servo side with little difficulty

- Controls cost \$10K - want entire robot in

25-30K range  $\therefore$  15-20K for motors, amps, mechanics

- Competing with GMF P150