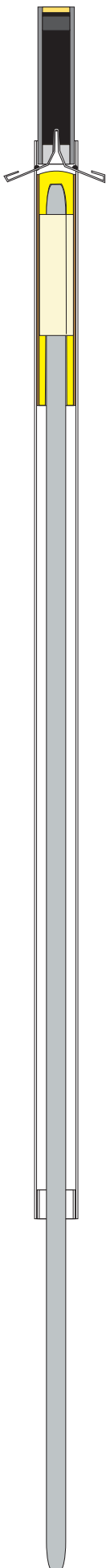


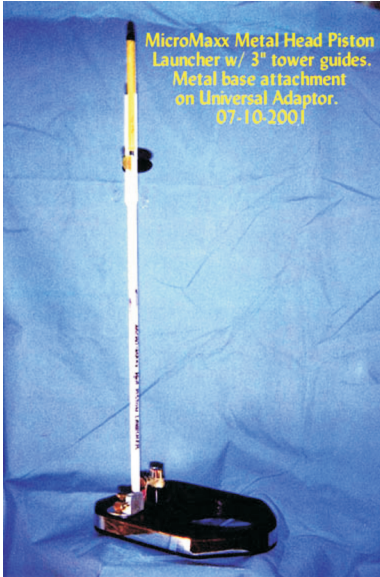
# Original 7.1mm C.A.D. Metal Head Piston Launcher

Designed & Drawn by John E. McCoy Sr. - NAR-15731- July 10, 2001

Dwg A1-2a



30ga (.010") Bare Nichrome Igniter bent to insert 3/8" into motor



MicroMaxx Metal Head Piston Launcher w/ 3" tower guides. Metal base attachment on Universal Adaptor. 07-10-2001

## The original C.A.D.

(Cheap & Dirty)

### Micro Piston Launcher

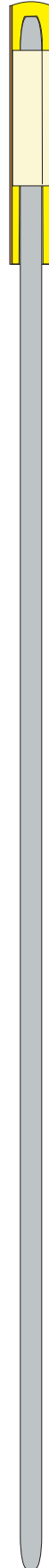
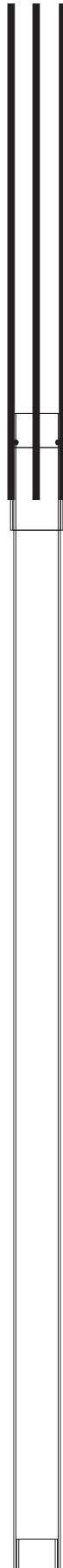
Quickly thrown together from a bent 1/8" Stainless Steel Launch rod piece 9" long, some Masking tape, a 1-1/2" long x 1/4" diameter Brass tube, a small section of Pencil lead tubing that Happened to telescope over Standard T2+ (.281" OD ) minimum diameter Micro Maxx motor tubing. a 9" section of T2+ with a small 3/16" long T2 white glued in slide tube stop and a bit of 5 minute epoxy.

First flight crimped the igniter leads to the motor/tube connection. This was later altered with two small .050" holes in the Slide tube about 3/16" below the forward end.

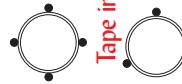
Pretty good reliability, but did on several occasions drag the igniter leads to the end of the stop.

Guide rods were Ca'd directly to the forward end of the slide tube made of .040" dia. Styrene rod.

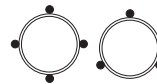
Later versions are made to be taped in place if needed.



Tape in Place 3" x .040" Carbon Fiber anti-tip off Guide rods



Optional T2 + + .316" OD - .290" ID x 1/2" Long Tape on 3" Guide rod base.



Add-on guides Make 3 or 4 .040" x 3.0" Carbon Fiber, Styrene or Bamboo.

1 inch square



T2 + Piston Launcher Slide Tube: .281" OD, .255" ID x 7.0" Long w/ 2-.032" Igniter Holes & T2 x 3/16" tube Stop.



5min Epoxy Filler/binder



Piston Metal Head .25" dia x 1.5" long Brass Tube



.125" dia. x 9.0" Stainless Steel Support Rod

Build up 3/4" masking tape layers to fit 1/4" Brass head



T2 + Piston Slide Tube: .281" OD, .255" ID, x 7.0" Long. w/ 2-.032" Igniter wire holes 3/16" from forward end.

T2

.246" x .1875" Slide Tube Stop