

# AndyMark Toughbox Nano Tube 31, Two 500 Key Shafts (am-0688) Assembly Instructions



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Parts needed to make a Toughbox Nano Tube:

Component	Qty.	Part #
Toughbox Large Cluster Gear	2	am-0149
Toughbox Small Cluster Gear	2	am-0151
Toughbox Large Output Gear	2	am-0150
Toughbox Nano Tube 31"	1	am-0653
500 Key Output Shaft	2	am-0506
$\frac{3}{8}$ " id Flanged, Bearing (FR6ZZ)	2	am-0028
#10-32 x $\frac{3}{8}$ " BHPS	4	am-1028
.145 x .593 x .875 od Nylon Spacer	2	am-1151
External Klipring	2	am-0206
Toughbox Small Hex Shaft	2	am-0152
$\frac{1}{2}$ " id Flanged FR8ZZ Hex-Bore Bearing	2	am-0279
$\frac{3}{8}$ " id Flanged Bearing (FR6)	2	am-0027
$\frac{3}{8}$ " id bearing, shielded (R6ZZ)	2	am-0516

Tools needed:

14mm Crescent Wrench

Phillips Screwdriver

**\*Note:** Shown are assembly instructions for a Toughbox Nano Tube using a different shaft and body.

Perform steps 1-10 on each side of the Toughbox Nano Tube so it looks like this:



## Toughbox Nano Tube Assembly Instructions:

**Step 1:** Press an FR8ZZ bearing into the nano tube on the bottom side.



**Step 2:** Press in the FR6ZZ to the hole behind the FR8ZZ from the inside of the tube.



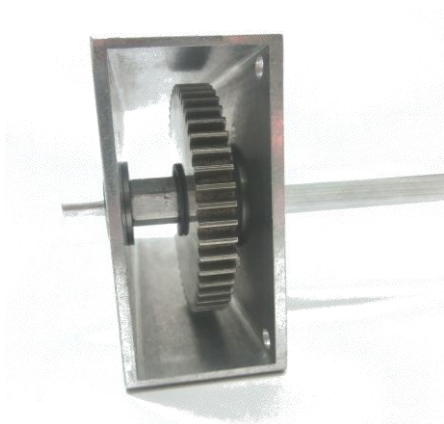
**Step 3:** Place the large output gear so that its flat side will face the FR6 bearing. Put the PVC washer above it.



**Step 4:** Push the 500 Key Output Shaft into the bearing.



Step 5: Slide the large output gear towards the FR8ZZ bearing. Then press the external klipping into the groove shaft. If you're having troubles, use a 14mm crescent wrench.



Step 6: Press an FR6 bearing into the middle hole of the motor side.



Step 7: Insert the large cluster gear with the raised portion facing the FR6 bearing.



Step 8: Insert the small cluster shaft.



Step 9: Insert the small cluster gear with the flat side facing towards the large cluster gear.



Step 10: Press the R6ZZ bearing into the middle hole of the output side. Right beside it, screw in the two #10-32 x 3/8" BHPS.

