AndyMark Toughbox Nano, 500 Long Hex Shaft Version (am-0554) Assembly Instructions

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Parts needed to make a Toughbox Nano:

Component	Qty.	Part #
Toughbox Large Cluster Gear	1	am-0149
Toughbox Small Cluster Gear	1	am-0151
Toughbox Large Output Gear	1	am-0150
Toughbox Nano Tube	1	am-0483
Toughbox Long Hex Output Shaft	1	am-0396
$^3/_8$" id Flanged, Bearing (FR6ZZ)	1	am-0028
#10-32 x $^3/_8$" BHPS	2	am-1177
½" PVC Spacer	1	am-1151
External Klipring	1	am-0206
Toughbox Small Hex Shaft	1	am-0152
½" id Flanged FR8ZZ Hex-Bore Bearing	1	am-0279
$^3/_8$" id Flanged Bearing (FR6)	1	am-0027
$^3/_8$" id bearing, shielded (R6ZZ)	1	am-0516

Tools needed:

14mm Crescent Wrench
Phillips Screwdriver

Toughbox Nano 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 Long Hex Output Shaft into the hex bearing.

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Step 5: Slide the large output gear towards the FR8ZZ bearing. Then press the external klipring into the groove shaft. If you're having troubles, use a 14mm crescent wrench.
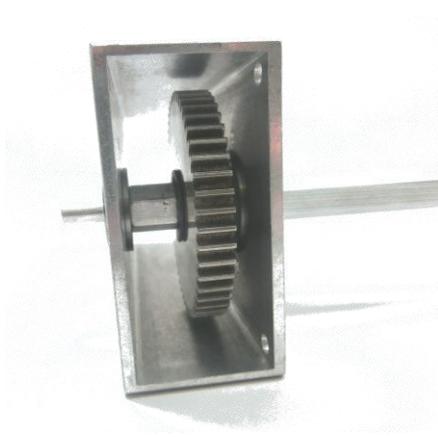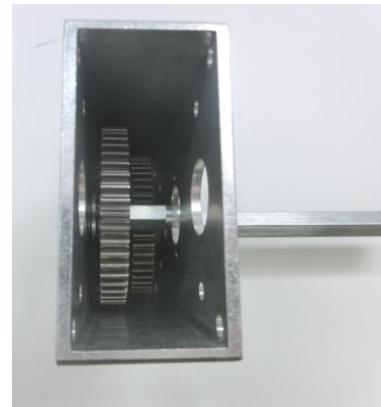
Step 6: Press an FR6 bearing into the middle hole of the motor side.

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.