

# **APEX 7000**

**by PTI**

## **BELT & GEAR TRAIN REPLACEMENT INSTRUCTIONS**



**PYRAMID**  
**TECHNOLOGIES, INC.**

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## **Document Overview**

The purpose for this document is to outline specific details needed for the proper completion of preventative maintenance belt & gear train replacement.

## **Scope**

The scope of this document is to define and layout all instructions in sequential order for the completion of preventative maintenance belt & gear train replacement process. It is the responsibility of the technician performing this procedure to follow the steps, instructions and inspection requirements as stated in this document.

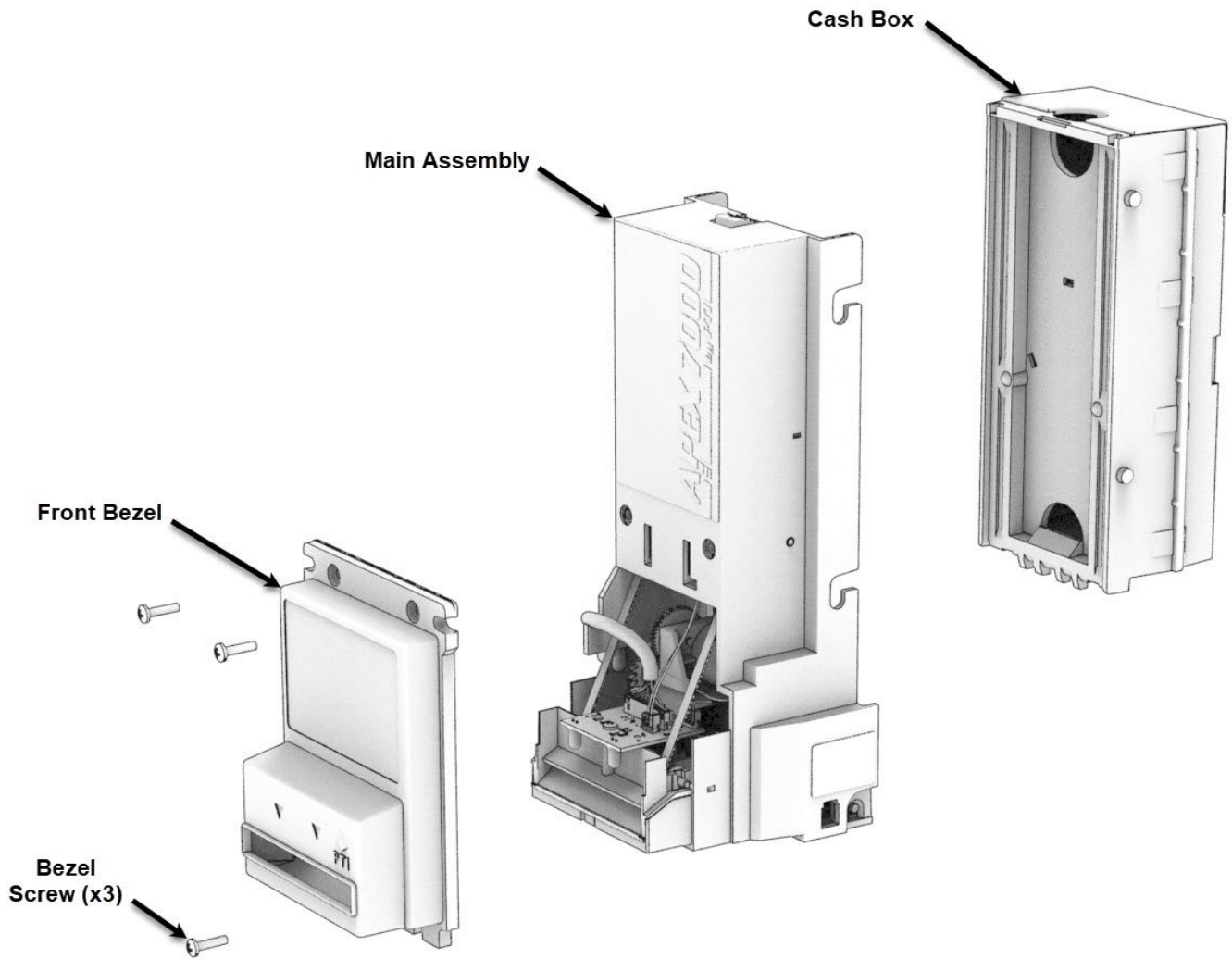
## **Required Equipment, Tools and Supplies**

| <b>Description</b>               | <b>Part Number</b> |
|----------------------------------|--------------------|
| Motor mount assembly             | 02AA0001           |
| 21/8 T Combo Gear                | 30AA0033           |
| 19 Tooth Gear                    | 30AA0034           |
| Apex Stacker drive belt (Qty. 2) | 91AA0001           |
| Thin slot screwdriver            | N/A                |
| #1 Phillips screwdriver          | N/A                |
| Needle nose pliers               | N/A                |

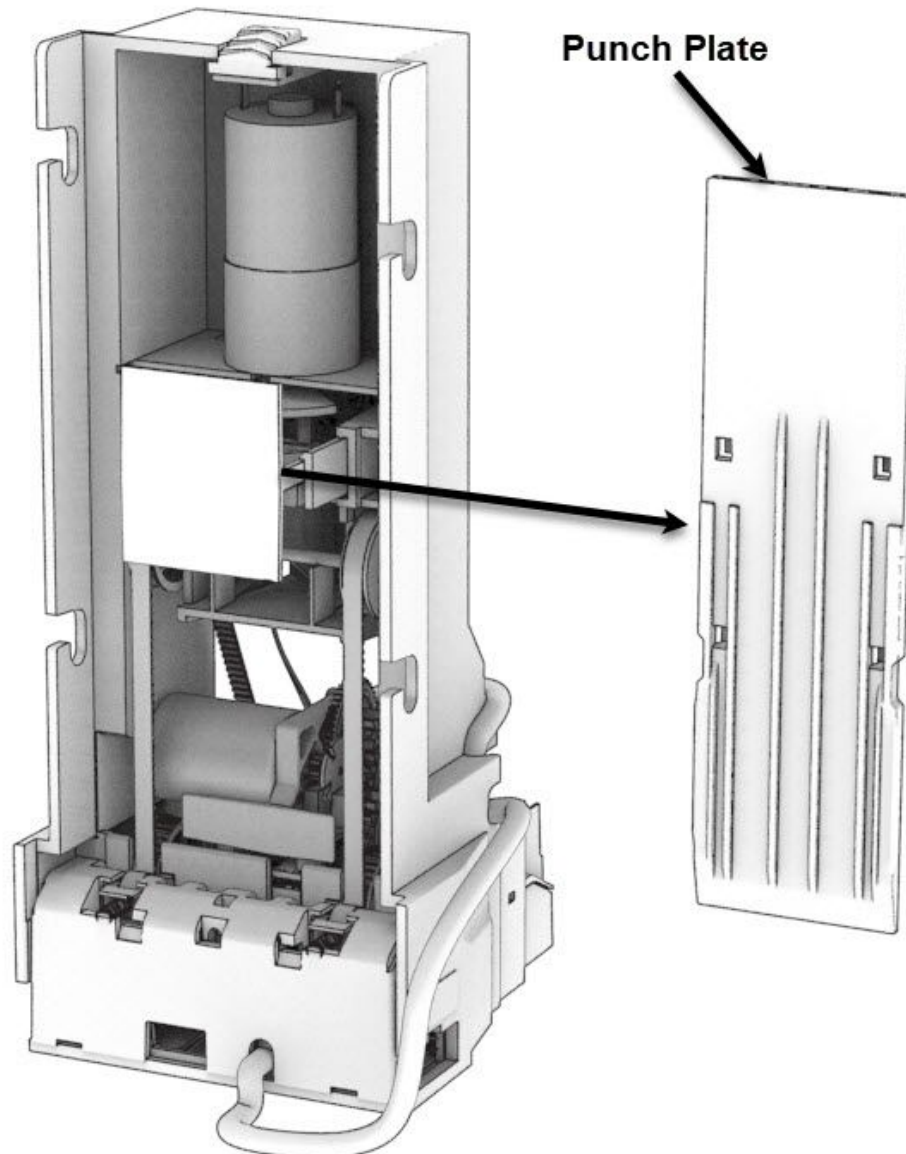
# **Belt & Gear Train Replacement Instructions**

## **Disassembly instructions**

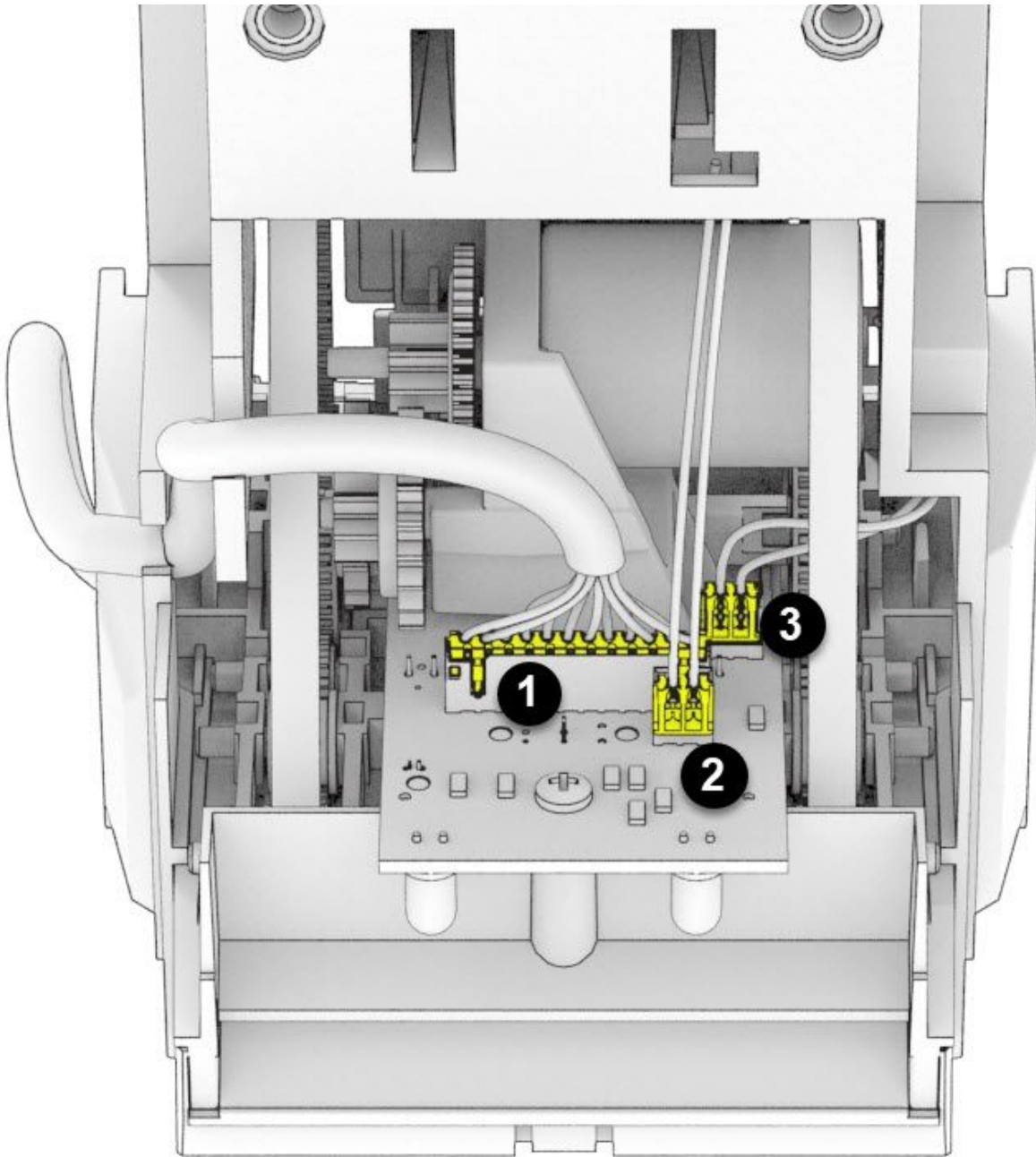
**Step 1:** Remove the cash box and front bezel secured with 3 screws using a #1 Philips screwdriver as indicated in the illustration below.



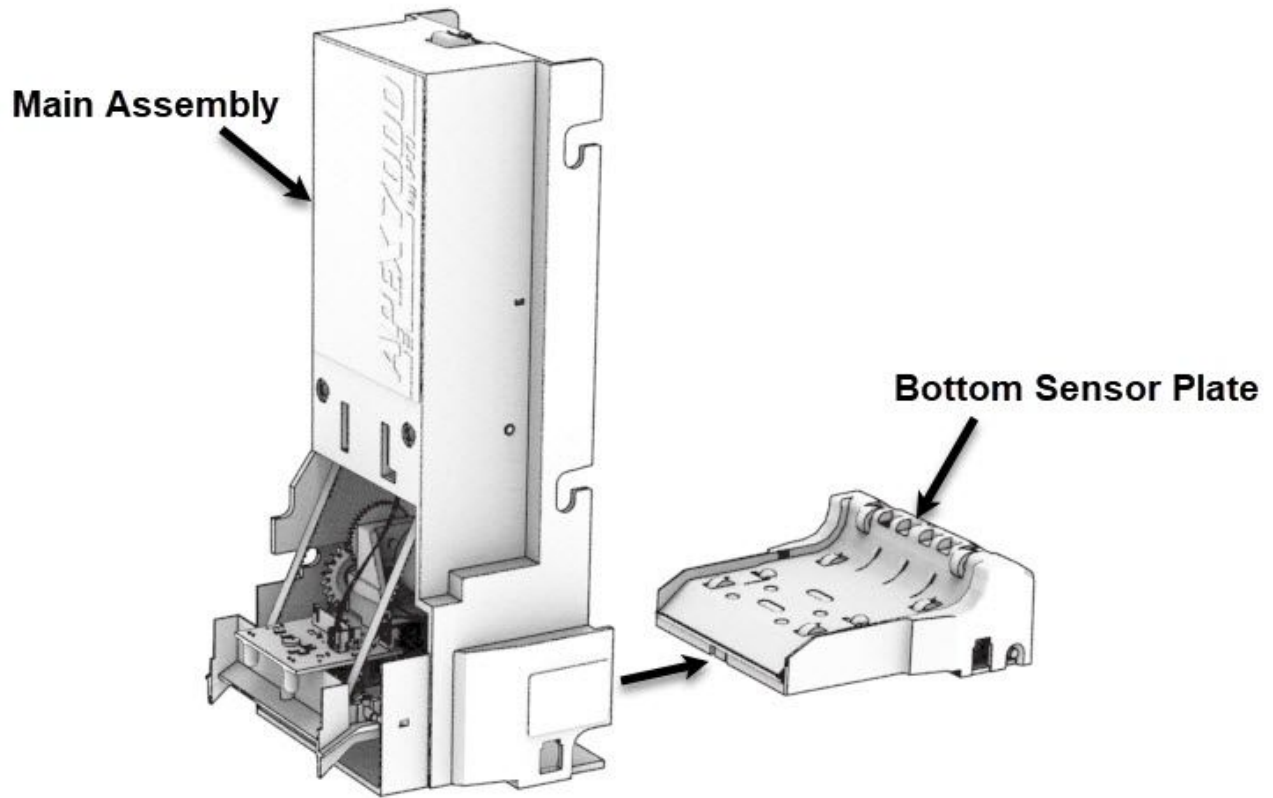
**Step 2:** With the cash box and bezel now removed please apply power to the unit only momentarily. This should be performed just quick enough to activate the stacker motor extending the punch plate out. After that has been achieved you can now remove the punch plate as indicated in the illustration below.



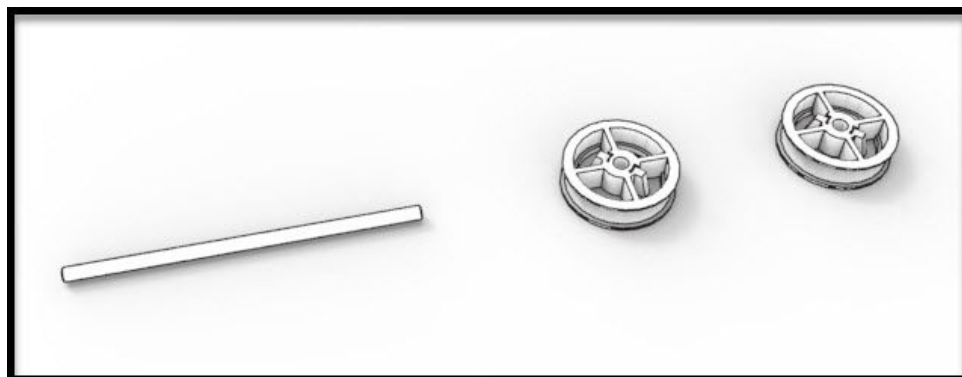
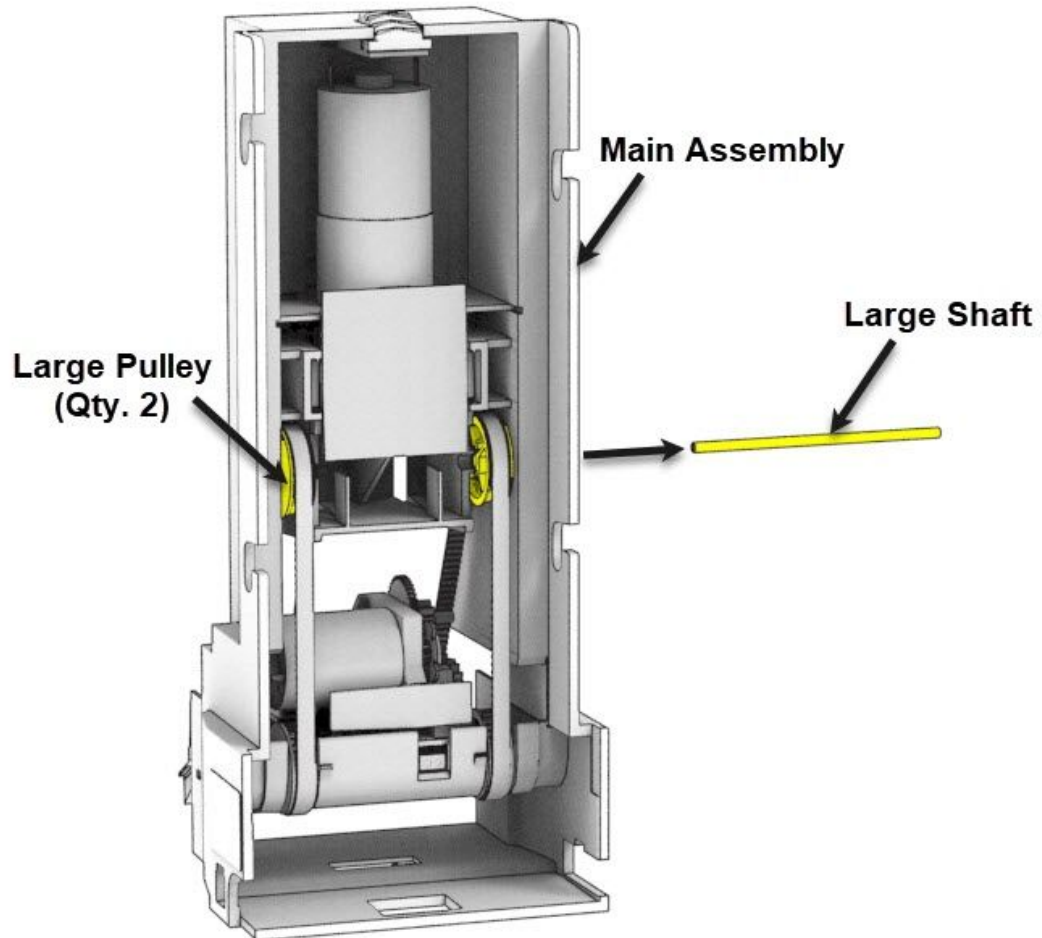
**Step 3:** Unplug all 3 connectors as indicated in the illustration below.



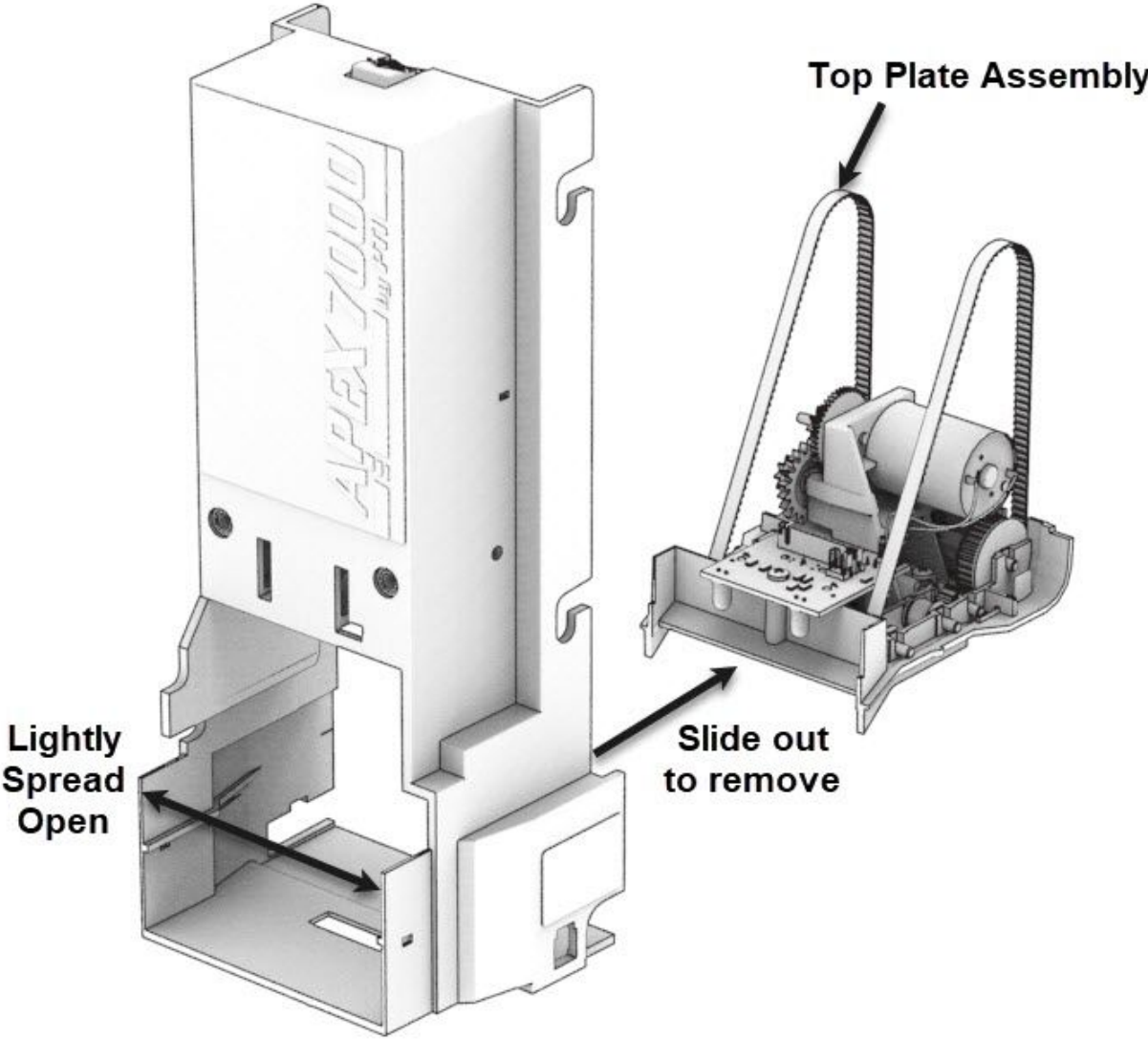
**Step 4:** Remove the bottom sensor plate from the main assembly as indicated in the illustration below.



**Step 5:** Using your screwdriver push the large shaft out the other side a bit. Finish pulling it the rest of the way out using your needle nose pliers. With that you can then remove the large pulley assemblies and set aside, as indicated in the illustration below.

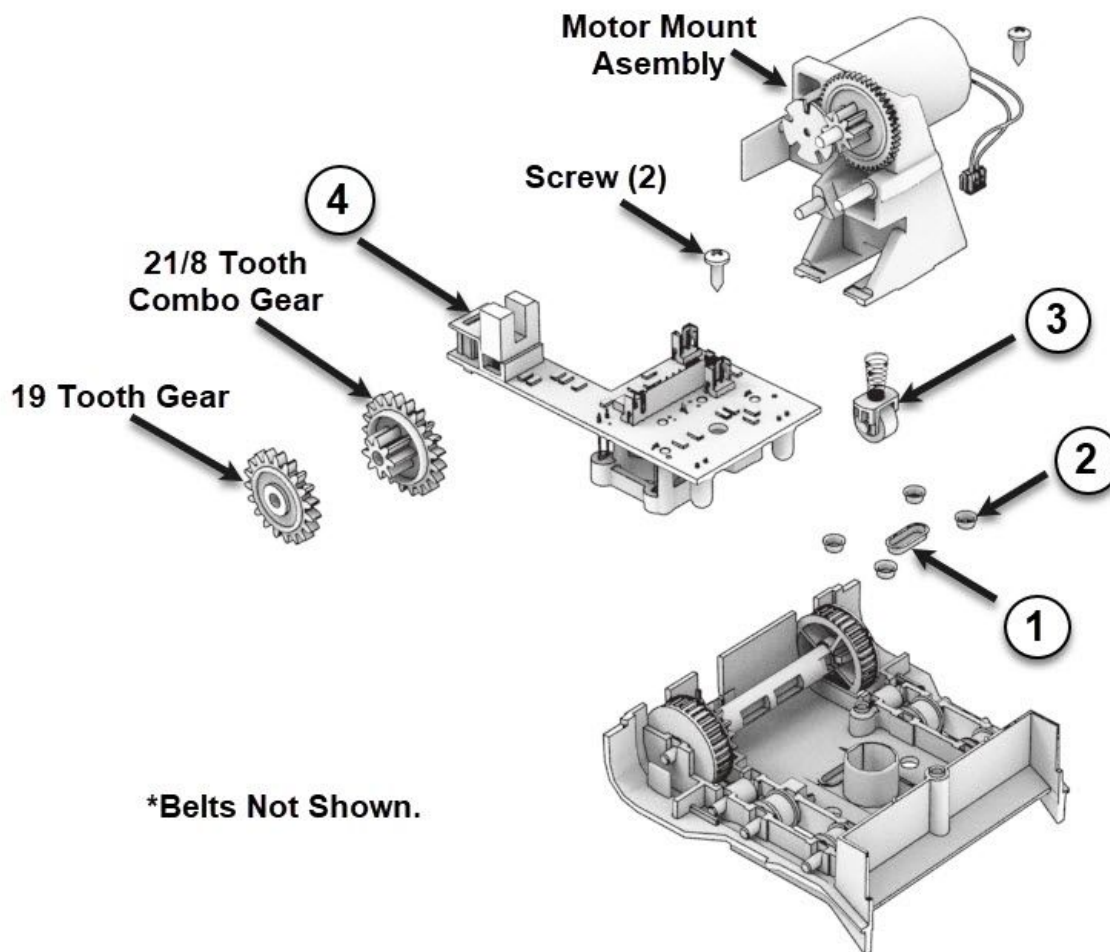


**Step 5:** With your fingers slightly spread apart as indicated below and remove the upper plate assembly as illustrated below.

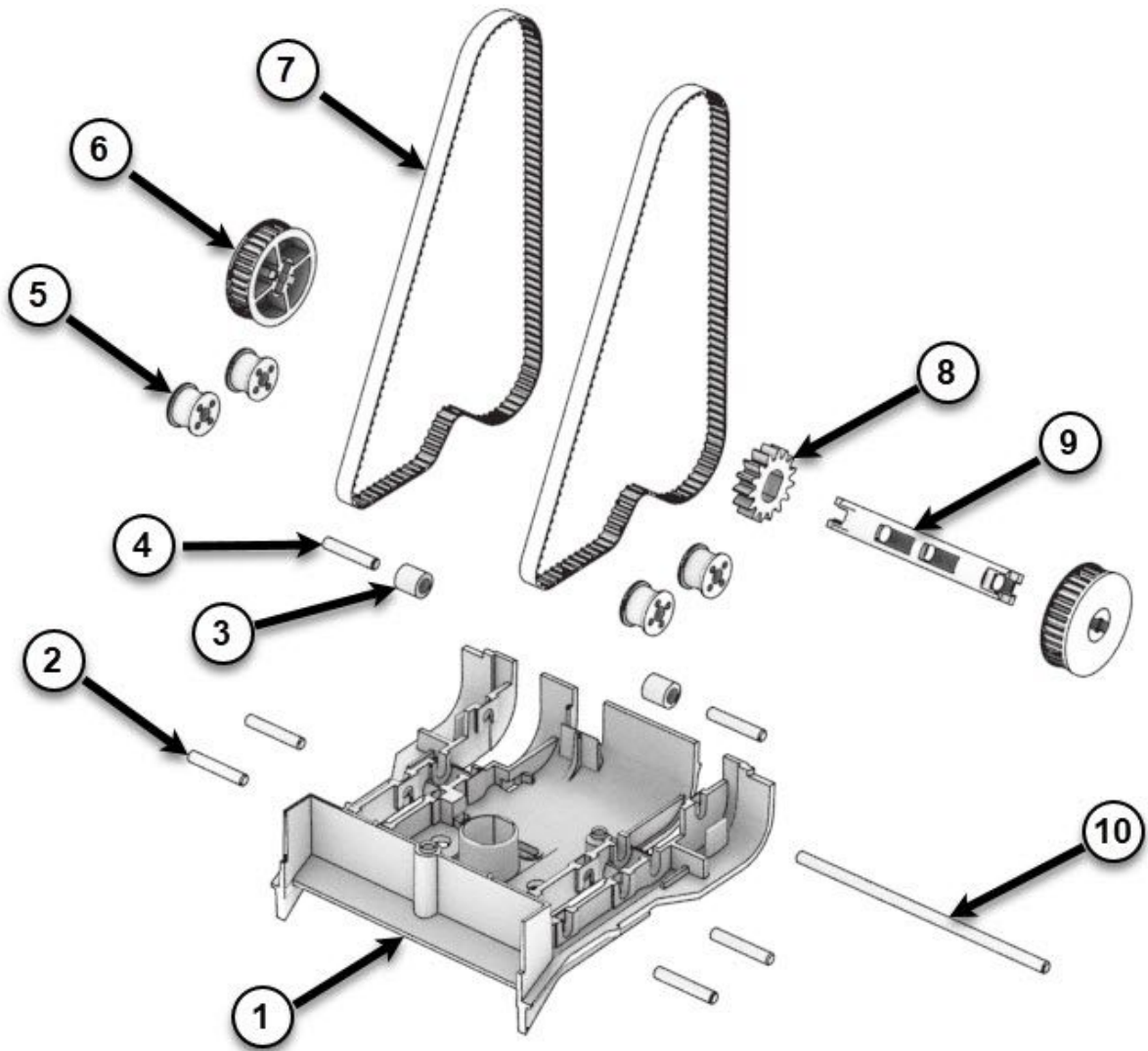


**Step 6:** With the upper sensor plate removed now we can begin disassembly. First remove the 2 screws as indicated. With the screws removed you can then remove the motor mount assembly, 21/8 T combo gear, 19 tooth gear and discard.

- Items 1, 2 and 3 can stay in the assembly and do not need to be removed. Pay close attention that they do not fall out as they are small and can be hard to find.
- Item 4 is the upper sensor board and will be used again during reassembly.

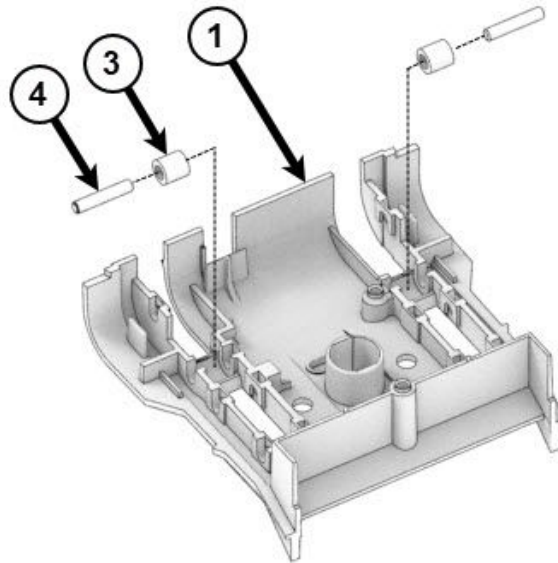


**Step 7:** With the motor mount assembly now removed, using your needle nose pliers please remove all the metal shafts holding all pulleys and rollers in place. Once removed please discard of item number 7 (old belts) and set aside all the rest for reassembly as indicated in the illustration below.



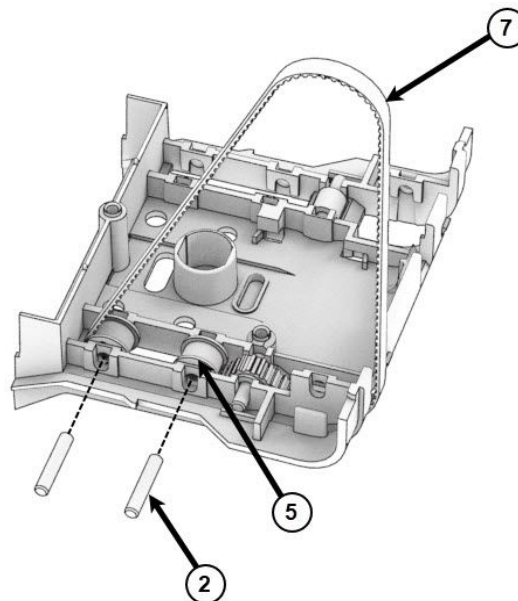
**Assembly instructions Step 1:** Now that disassembly is complete and the old replacement parts discarded we can begin to assemble. Please follow as indicated in the illustration below.

**\*\*Note that item's 4 are the smaller length shaft to be used. The other is longer and should not be used in this step.\*\***



**STEP 1: 2 PLACES, SLIP ITEM 4 INTO ITEM 3 AND DROP INTO CAVITY OF ITEM 1 AS SHOWN.**

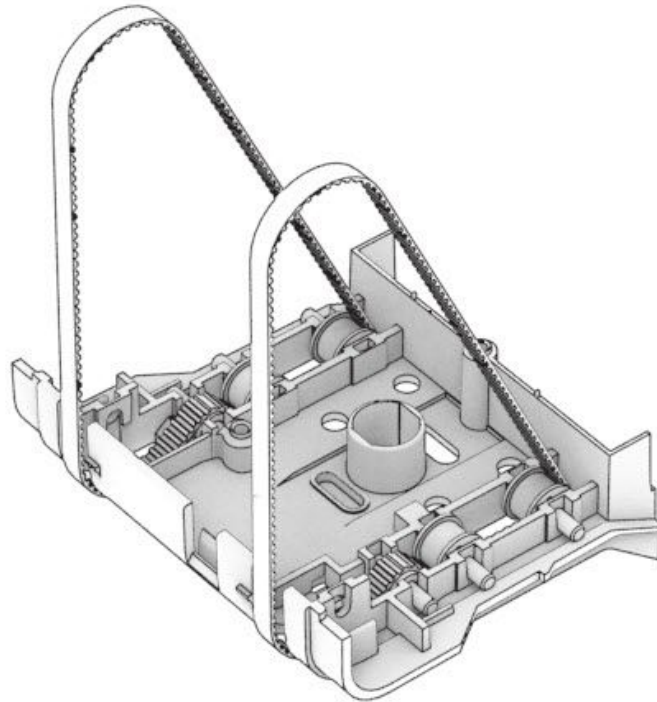
**Step 2 & 3:** Please follow as indicated in the illustration below.



**STEP 2: PLACE ITEM 7 INTO THE FRONT OPENING OF ITEM 1 AS SHOWN.**

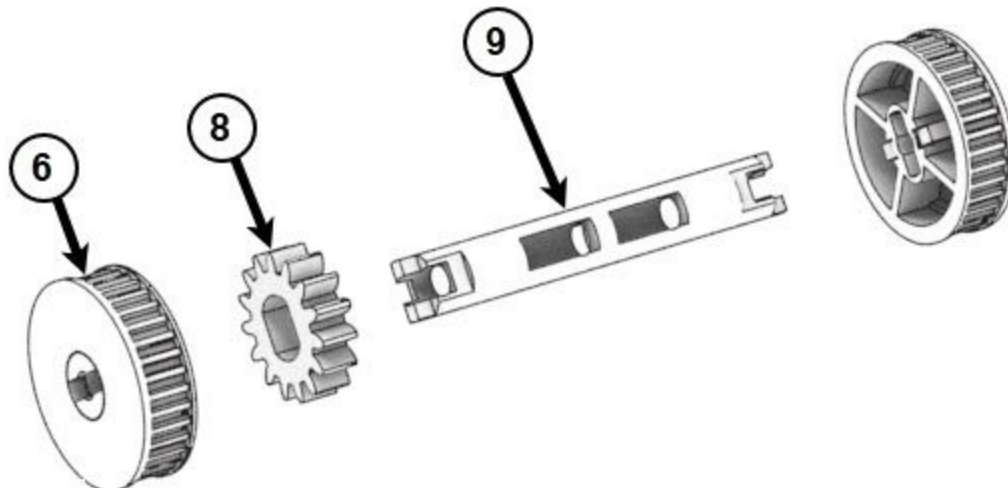
**STEP 3: 2 PLACES, INSERT ITEM 5 INTO THE POSITION AS SHOWN AND SECURE BY PRESSING ITEM 2 THROUGH THE HOLE OF ITEM 1 AND ITEM 5.**

**Step 4:** Please follow as indicated in the illustration below.



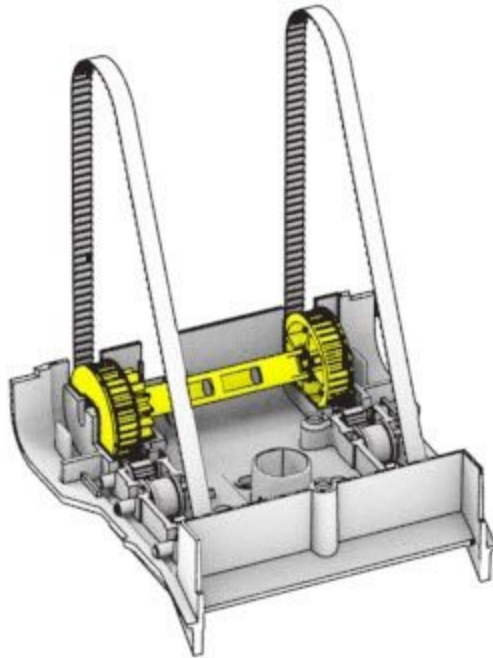
**STEP 4: REPEAT STEP 3 FOR THE OTHER SIDE.**

**Step 5:** Please follow as indicated in the illustration below.



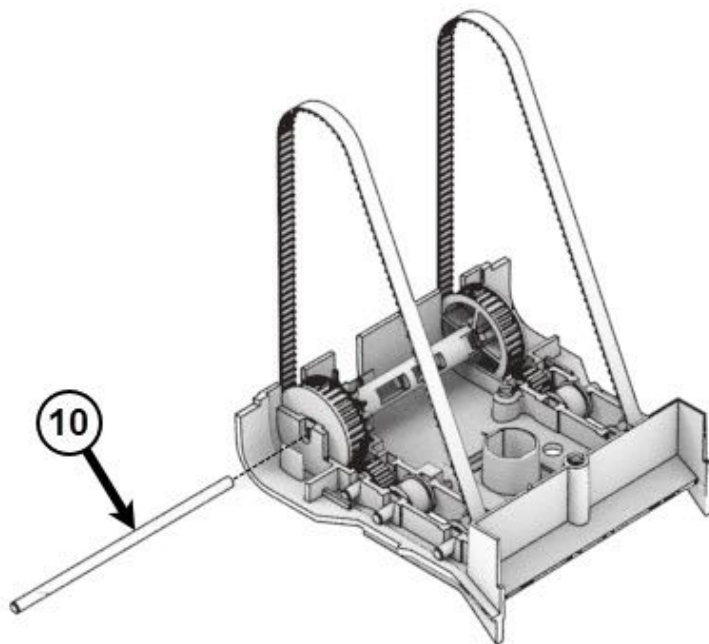
**STEP 5: ASSEMBLE ITEMS 6 AND 8 ONTO THE ENDS OF ITEM 9 AS SHOWN.**

**Step 6:** Please follow as indicated in the illustration below.



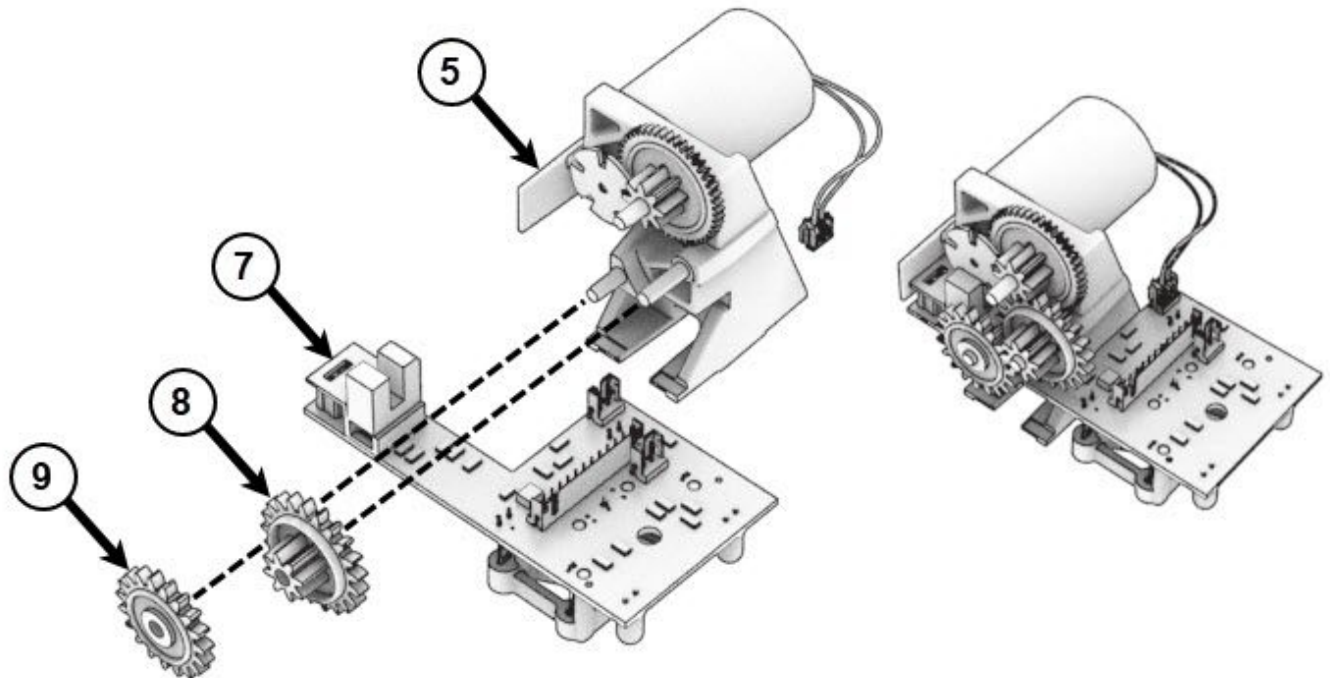
**STEP 6: INSTALL THE STEP 5 ASSEMBLY INTO THE LOWER PLATE AS SHOWN OVER THE BELTS.**

**Step 7:** Please follow as indicated in the illustration below.



**STEP 7: SECURE WITH ITEM 10.**

**Step 8 & 9:** Please follow as indicated in the illustration below.



**STEP 8:** NEST ITEM 7 INTO ITEM 5.  
CONNECT THE HARNESS FROM ITEM 5 TO THE CLOSEST CONNECTOR.

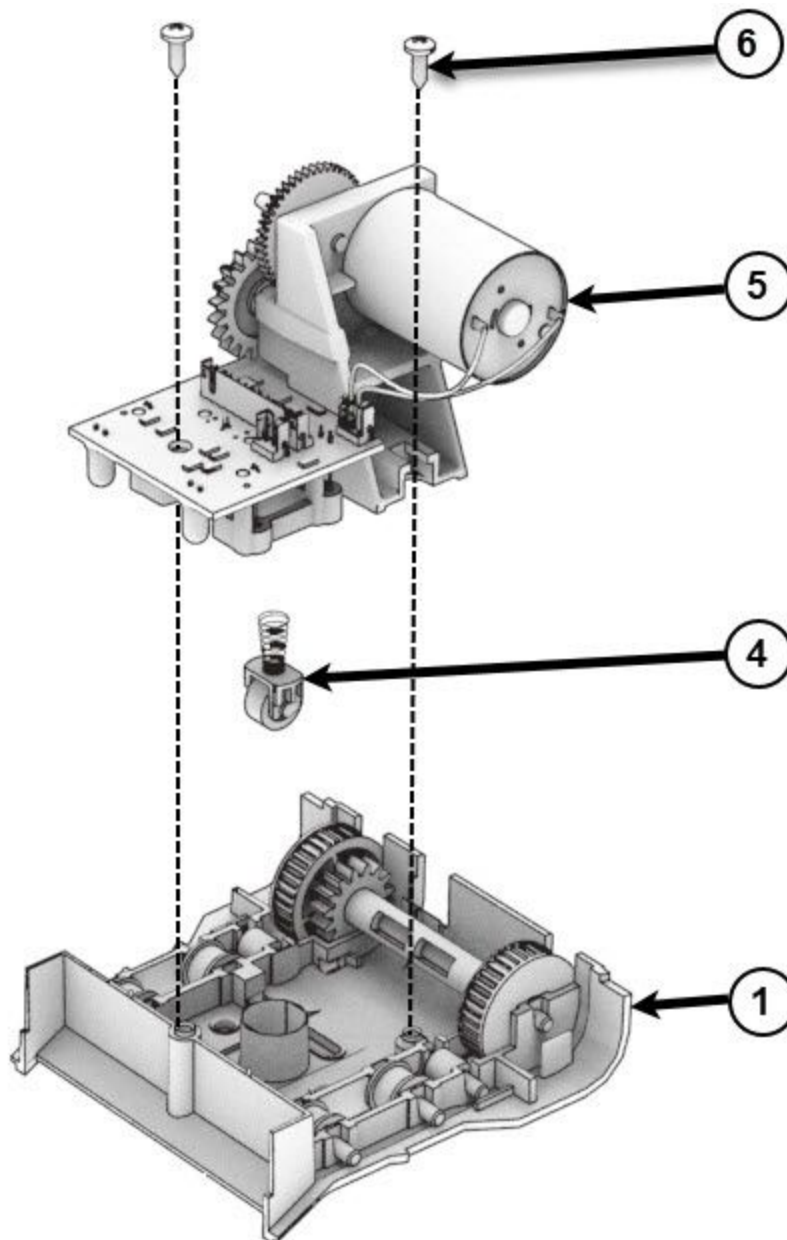
**STEP 9:** PLACE ITEMS 8 AND 9 ONTO THE SHAFTS OF ITEM 5 AS SHOWN.

**Step 10, 11 & 12:** Please follow as indicated in the illustration below. Note that belts are not shown in the following illustrations.

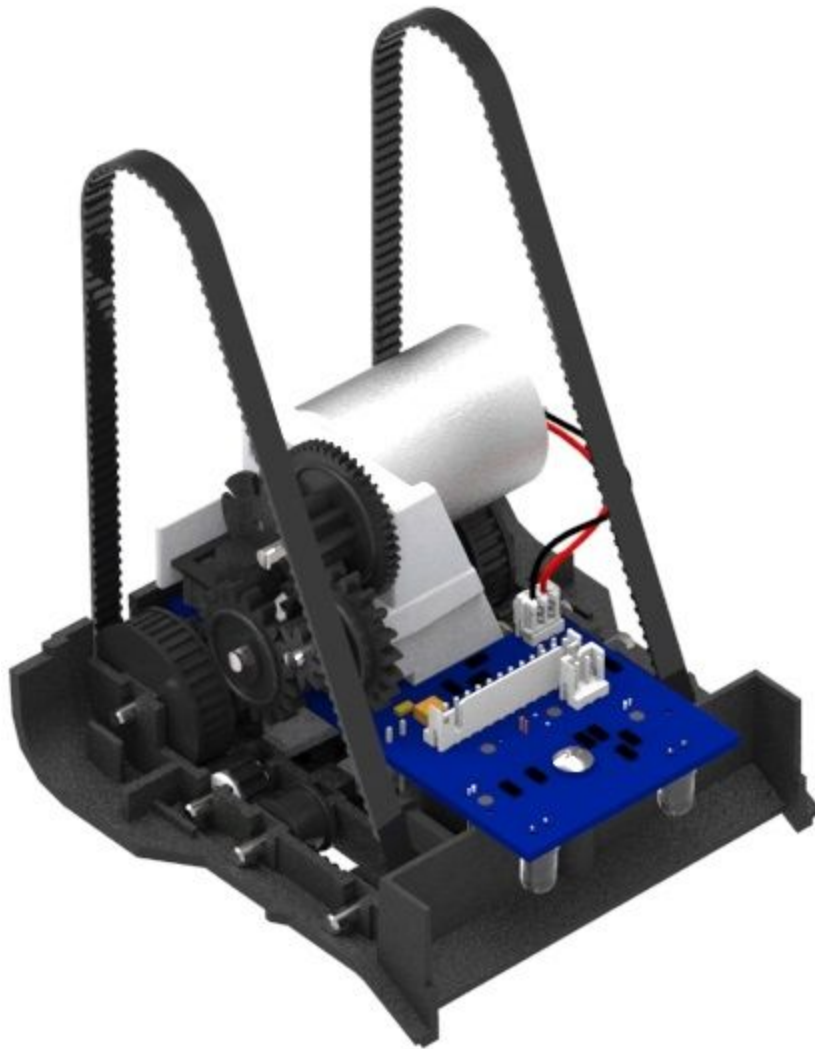
**STEP 10: DROP ITEM 4 INTO CAVITY OF ITEM 1.**

**STEP 11: INSTALL ITEM 5 ONTO ITEM 1 BY SECURING THE GEAR SIDE OF ITEM 5 UNDER THE TABS, AND PRESSING THE ASSEMBLY INTO ITEM 1 UNTIL IT IS FULLY SEATED.**

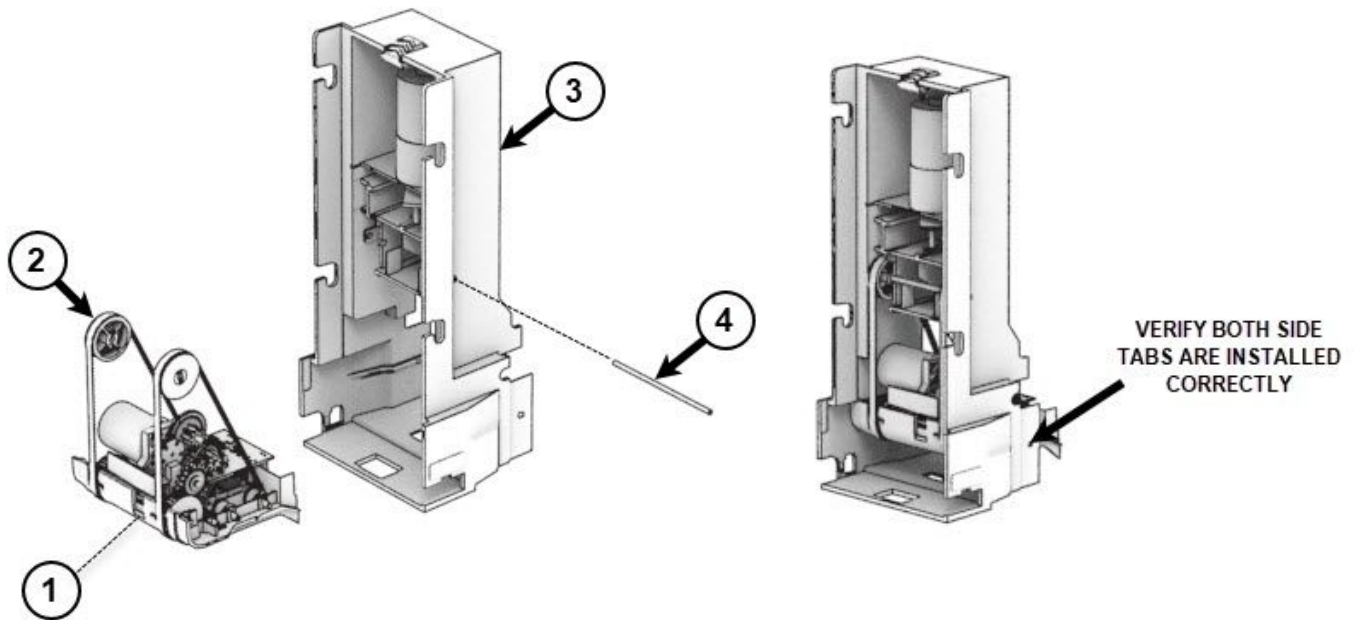
**STEP 12: SECURE ITEM 5 TO ITEM 1 WITH QTY (2) OF ITEM 6.**



When complete your assembly will look like the illustration below.



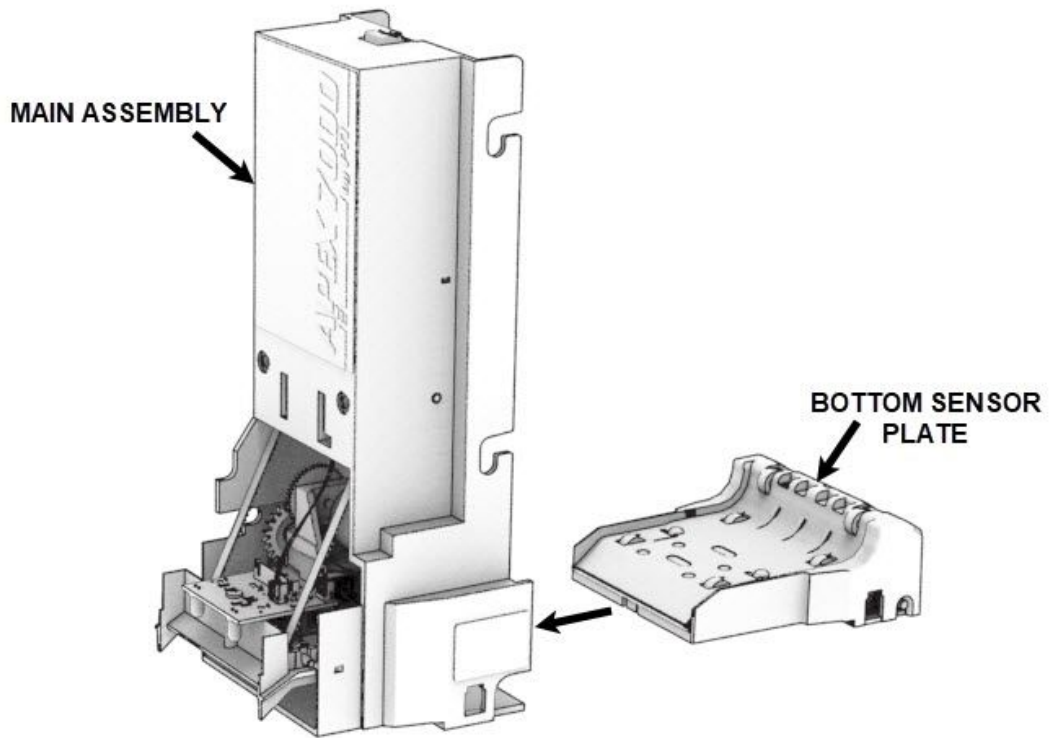
**Step 13:** Please follow as indicated in the illustration below.



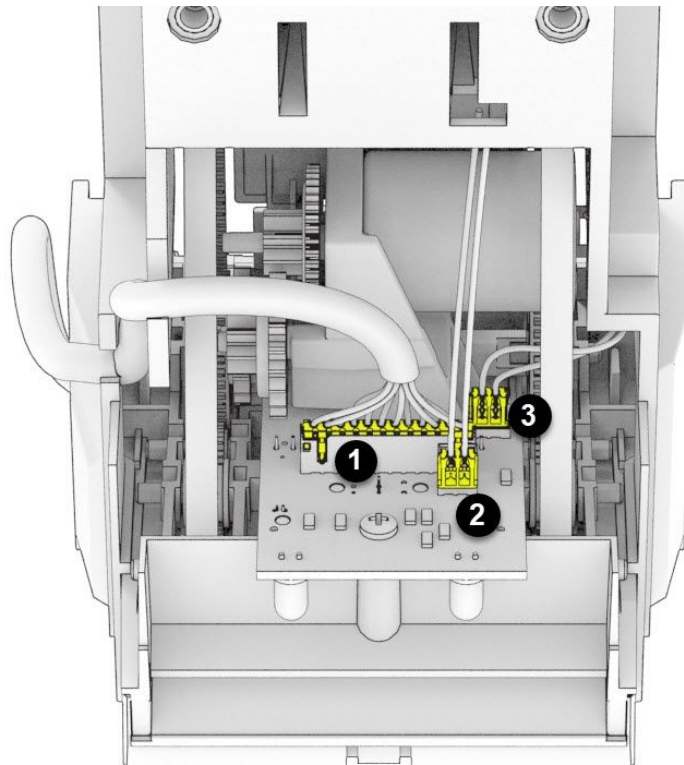
**NOTES:**

1. ORIENT ITEM 1 AS SHOWN AND PRESS INTO ITEM 3. ALIGN THE SIDE TABS OF ITEM 1 SO THAT THEY SNAP INTO THE HOLES IN ITEM 3. VERIFY THAT THE TABS ARE SECURE AND VISABLE AND ITEM 1 IS IN STRAIGHT.
2. PLACE ITEM 2 INSIDE THE BELT OF ITEM 1 WITH THE FLANGE TO THE OUTSIDE AS SHOWN. PRESS ITEM 2 INTO THE GROVE IN ITEM 3 AND SECURE BY PRESSING ITEM 4 THROUGH THE CENTER OF ITEM 2.
3. FOLLOW SAME PROCEDURE FOR THE SECOND PULLEY, PRESSING ITEM 4 THROUGH THE CENTER OF ITEM 2, AND SECURING IT IN THE FINAL HOLE OF ITEM 3.
4. THE PULLEYS AND BELTS SHALL SPIN FREELY.

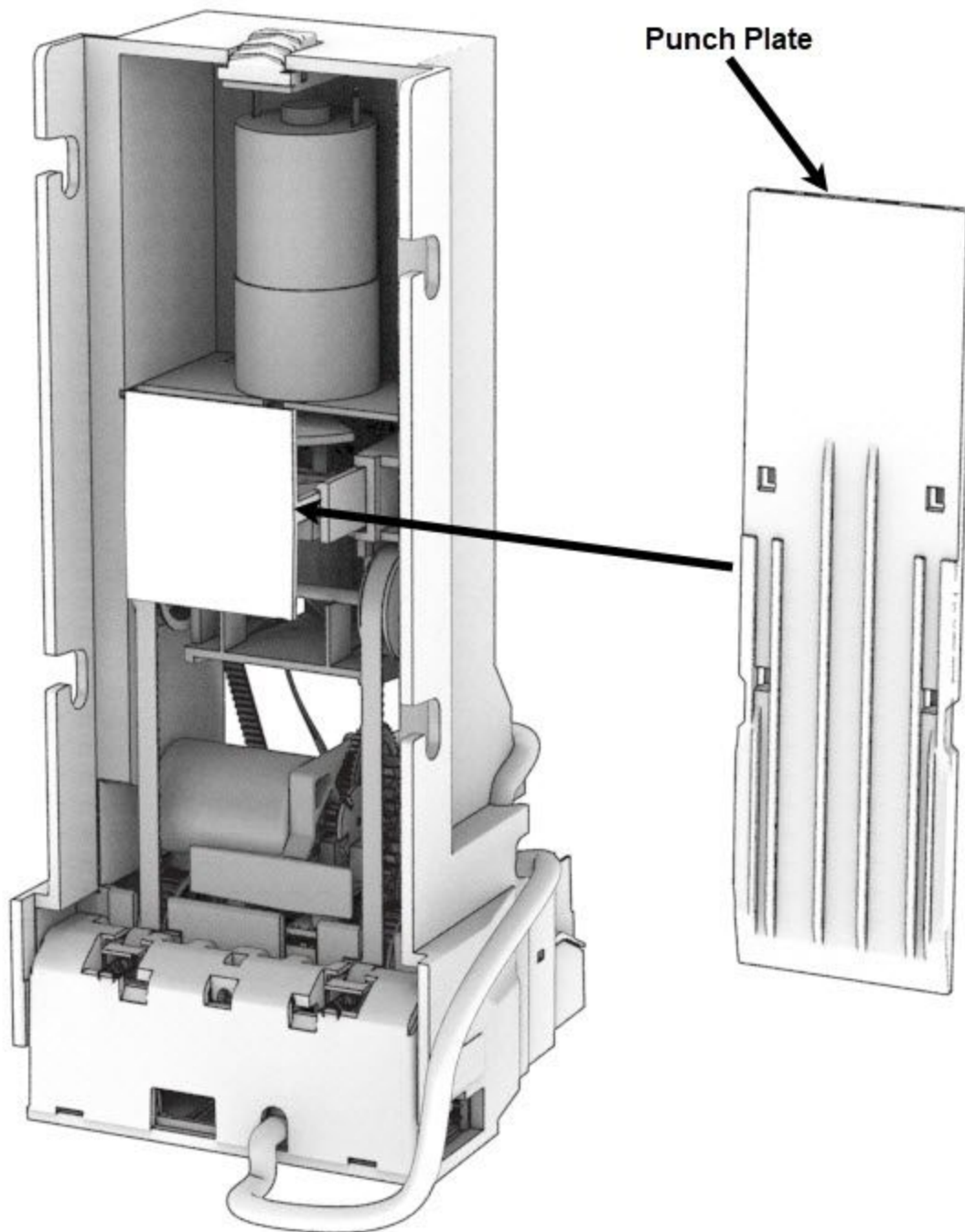
**Step 14:** Reinsert the bottom plate as indicated in the illustration below:



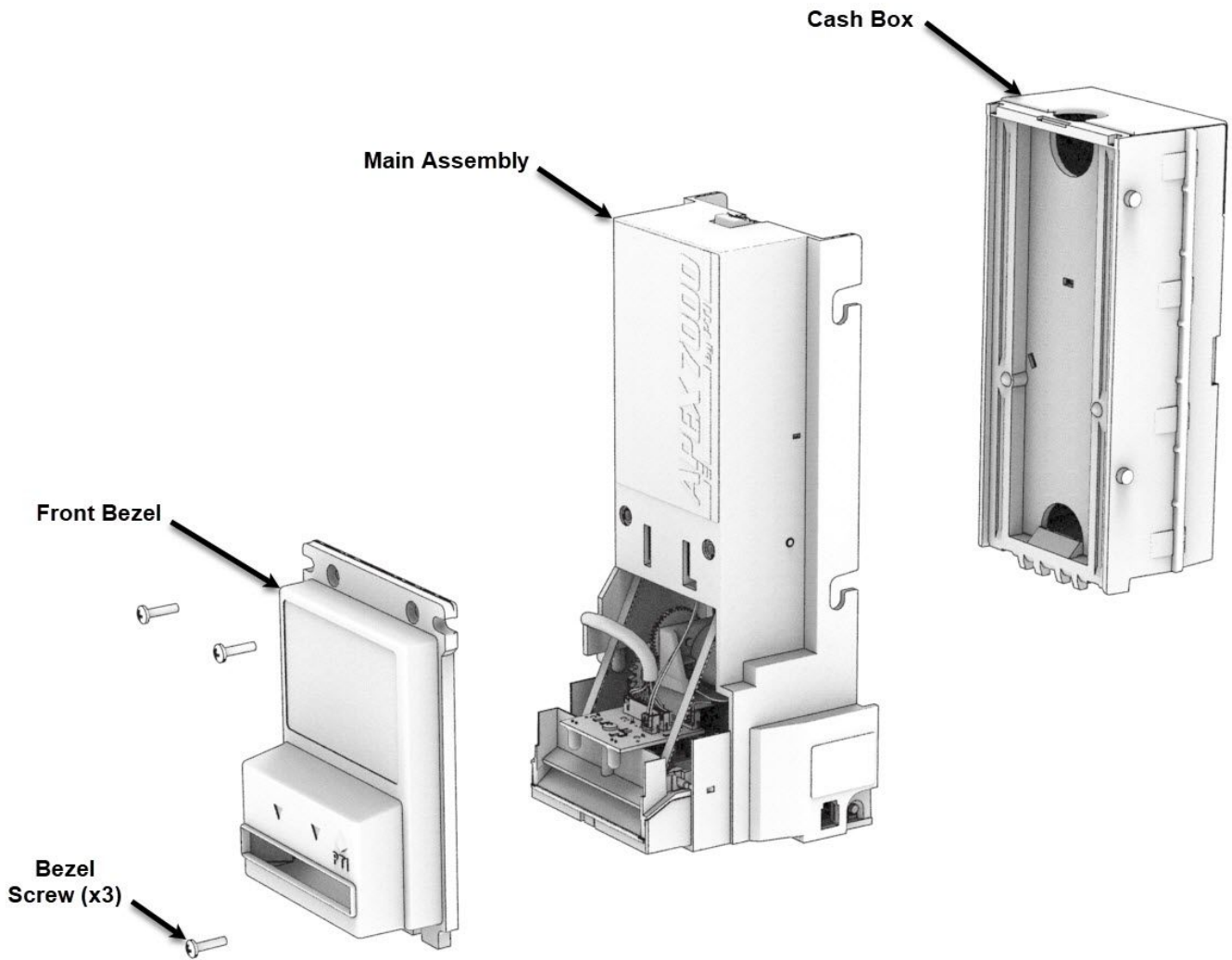
**Step 15:** Reconnect all 3 connectors as indicated in the illustration below:



**Step 16:** Apply power to the unit only momentarily. This should be performed just quick enough to activate the stacker motor extending the punch mechanism out. After that has been achieved you can now install the punch plate as indicated in the illustration below.



**Step 17:** Reinstall the cash box and front bezel securing it with the 3 screws using a #1 Philips screwdriver as indicated in the illustration below.



**Step 18:** Assembly is now complete. Continue by performing a functional test to verify correct installation has been performed. For any issues please make sure to check that all steps have been completed as instructed for proper operation.

