



**WORLD'S PREMIER GAMES**

PARTS: (561) 253-3311

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# STOP-IT



**PLEASE READ FIRST BEFORE  
PLUGGING IN MACHINE**

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103MAN-01-A



## Player Interaction

### General Game Play

When a credit is purchased, the **dial lights**① immediately begin to rotate while one position flashes indicating the target.

The player presses the play button to try to stop the chasing light on the flashing position (target). If the player is successful, the next position in the clockwise direction begins to flash indicating the new target position. The player then tries to stop the chasing light on the new target position. Again, if the player is successful, the flashing target position moves again clockwise, and so on. When the player reaches the **blue zone**② a small prize may be selected. The player may also choose to forfeit the small prize for a chance to make it to the **red zone**③ where a large prize may be selected by pushing the continue button.



The game ends either when a player misses the flashing target position or when a prize level is reached and a prize is selected. The player gets three tries to hit the **first target position**④ when the game begins, but gets only one chance on each remaining target thereafter.

### Prize Selection

When a prize level is reached, the appropriate **prize selection button**① will illuminate. The player presses the **rotate prizes**② button until the prize they desire is located in the prize selection window. The prize selection button is then pressed to activate the dispense sequence. During the dispense sequence, the prize tree rotates the selected prize to the position above the **prize chute**③ before dispensing. The dispensed prize is accessed by pushing the **prize chute door**④.



### Game Setup

Attach the power cord to the power supply input at the back of the game and plug the cord into a power outlet.

Go through the programming options to set the price per credit, plays per large prize, play volume, jackpot volume, etc... Explanations of each programming option are explained in detail in the programming options section of this manual.

## Merchandising the Stop It

Remember that “Winners Make Players”! The more winners you have the more play the machine will get. Reducing payout almost always leads to less net income and less longevity of any machine in any location.

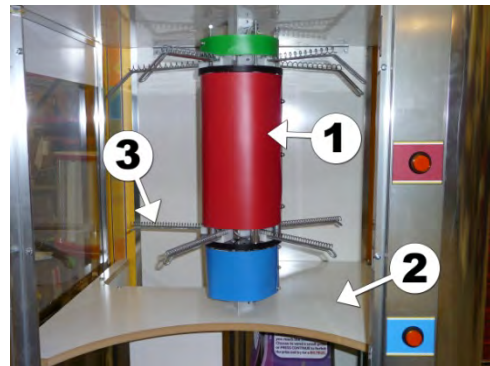
The Stop It machine is very versatile in the way it can be merchandised. The game can be set up to allow a wide range of prize values. The machine leaves the factory set up for lower prizes valued at around \$0.50 average and upper prizes valued at \$200.00 average. The programming options for dial speed are set at fast, win window to 1ms and large prize hit ratio to 700. With these prizes and program settings your machine will pay out around 30%. You can tweak the program settings to match the prize values you will be using.

We recommend running your payout no less than 30%. Many aggressive operators increase the payout to 40% or 50% by increasing the hit ratio. They report higher collections and longevity of income. This strategy works especially well on machines set up for the expensive prizes on the upper level.

Please note that the game leaves the factory with the keep out “off”. This means that the win window for the large prize is open to enable an easier win initially. Once a prize is won, the keep out goes “on” reducing the win window until the number of plays reaches the large prize hit ratio setting. We have found that allowing a win early increases play eventually paying for that first prize quickly. When expensive prizes are used and the hit ratio is set high, players lose confidence in the ability to win when first setting the machine. If you do not want the window open upon first setting the machine you will need to play it until you win.

## Loading Prizes

- It is easiest to load the **prize tree**① with the power off, though it is not necessary.
- Prizes on the lower level should not be allowed to drag on the **prize tree floor**②.
- Prizes on the upper level should have a minimum of ½” clearance between the bottom of the hanging prize and the top of the prize dispensing spring located below it.
- Hang prizes no closer than every second turn on the prize dispense spring. If they hang on every turn, the machine will likely vend two prizes before it can sense the first prize dropped.



To load prizes on the lower level, simply hang the prizes on the **prize tree arms**③ using Benchmark Prize Rings or other similar hanging method offered by your merchandiser. Avoid, string, or very thin ties as these may cause binding.

To load the prizes on the upper level, be sure to use the security feature for expensive prizes. Load the prize on the first turn of the **prize spring**④ before the **security wire**⑤. Turn the prize spring by hand, feeding the prize hanger under the security wire. The end prize should be located 3-5 turns from the end. Heavy tie wraps may be used to hang prizes on this level but care must be taken to allow a large loop of at least 2" diameter to avoid binding as the prize slides down the tree arm. You may also use standard hanging rings with the security hole. You should test the vend operation of any hanging method.

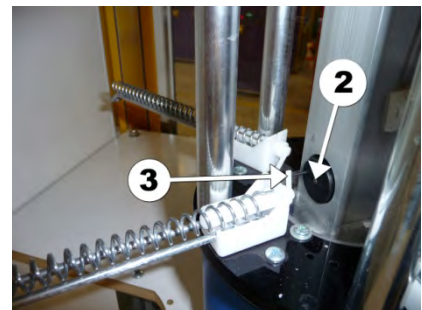


Lower level prizes have a much lower value and do not require the use of the security wire.

## Service Guide

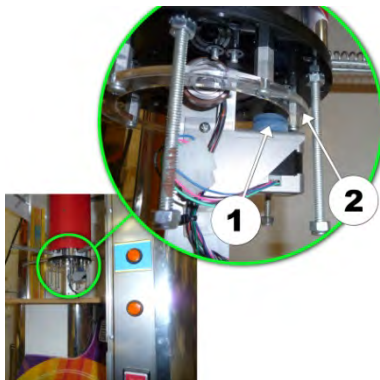
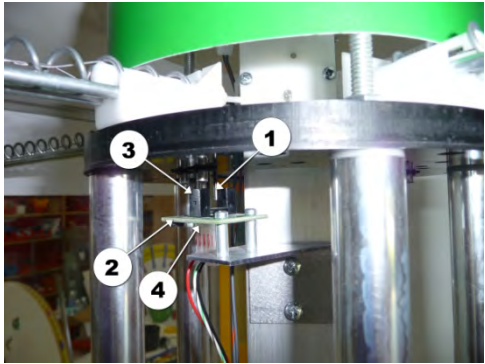
### Troubleshooting Guide

Symptom	Solution
Prize does not vend but vend motor runs	<ol style="list-style-type: none"> <li>1. Check vend motor operation.                             <ol style="list-style-type: none"> <li>a. During a vend cycle, the <b>vend motor pin plate</b>② should telescope out to engage the prize spring drive arm. If it does not telescope out, replace the vend motor.</li> <li>b. If the pin plate telescopes, but does not engage the <b>prize spring drive arm</b>③, check that the prize spring is pushed all the way back and seated in the spring mount bracket. Also check that the drive arm is not broken.</li> </ol> </li> </ol>



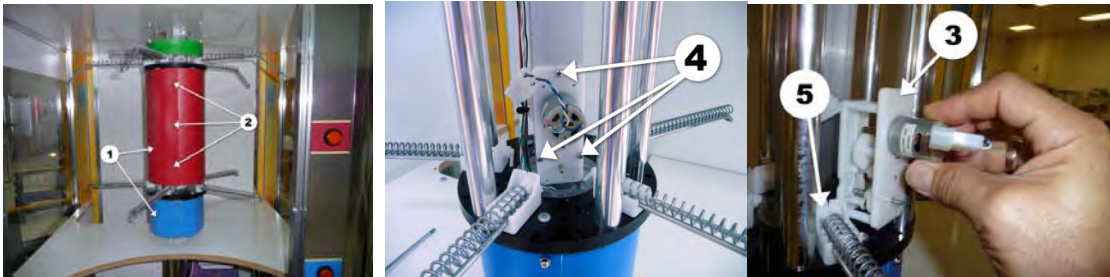


<p>Prize does not vend and vend motor does not run</p>	<ol style="list-style-type: none"> <li>1. Check power distribution board for overloaded fuse when the vend motor should be running. An overloaded fuse will be indicated by an led described in the Board Set section of the manual. If the fuse is overloaded, unplug the vend motor to see if the led indicating overload goes out. If it does, replace the vend motor.</li> <li>2. If no fuse is showing overload, check continuity of motor wires back to the driver board. If continuity is good, replace driver board.</li> <li>3. The vend motor will not start unless the computer sees the <b>home pin</b>① signal from the <b>prize tree opto</b>②. There is one opto pin for each vend location. The computer checks to be sure the prize tree is located in position before running vend motor. Check that when the prize tree stops after pressing the prize selection button that the led on the prize tree opto sensor is “on”.             <ol style="list-style-type: none"> <li>a. If the light is “off”, check the sensor by manually blocking it. You can insert any opaque object within the <b>horseshoe</b>③ and watch for the <b>led</b>④ on the pcb to illuminate. If it doesn’t illuminate, check power or replace sensor.</li> <li>b. If the light can be activated manually but is not on when the tree stops, make sure the pin is located within the opto horseshoe and that it is deep enough to activate the sensor.</li> <li>c. If the light comes on when the prize tree stops after pressing the prize vend button but the vend motor does not start, check the sensor board output or replace.</li> </ol> </li> </ol>
<p>Vend motor releases prize from spring, but prize stays on arm</p>	<p>Check prize hanging method. Tight loops with cable ties may cause prize to contact under side of prize arm causing a bind.</p>
<p>Prize tree does not rotate properly</p>	<p>Check the <b>friction drive roller</b>① and <b>drive ring</b>②. Look for excessive wear and replace parts as needed.</p>



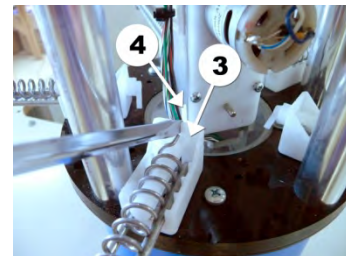
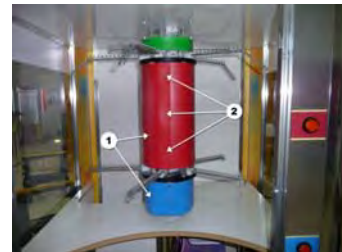
**Replacing a vend motor**

1. Power machine off.
2. Remove **tree skirt**① by removing **acorn nuts**② to access **vend motor**③.
3. Unplug vend motor from harness to disconnect.
4. Remove the **three screws**④ that mount the vend motor.
5. Rotate prize tree so that the vend motor can be pulled back between the **vend spring brackets**⑤.
6. Reverse steps 5-2 to using new motor.



### Replacing a vend spring

1. Remove **tree skirt**① by removing **acorn nuts**② to access **vend spring bracket**③. You may be able to skip this step and carefully gain access under the skirt.
2. Insert flat head screwdriver into slot in **vend spring bracket**③ and carefully spread plastic.
3. Align **drive arm**④ on vend spring with the slot in vend spring bracket and pull spring to remove.
4. Push to snap replacement vend spring into vend spring bracket with drive arm aligned with slot.
5. Replace tree skirt.



### Board Set

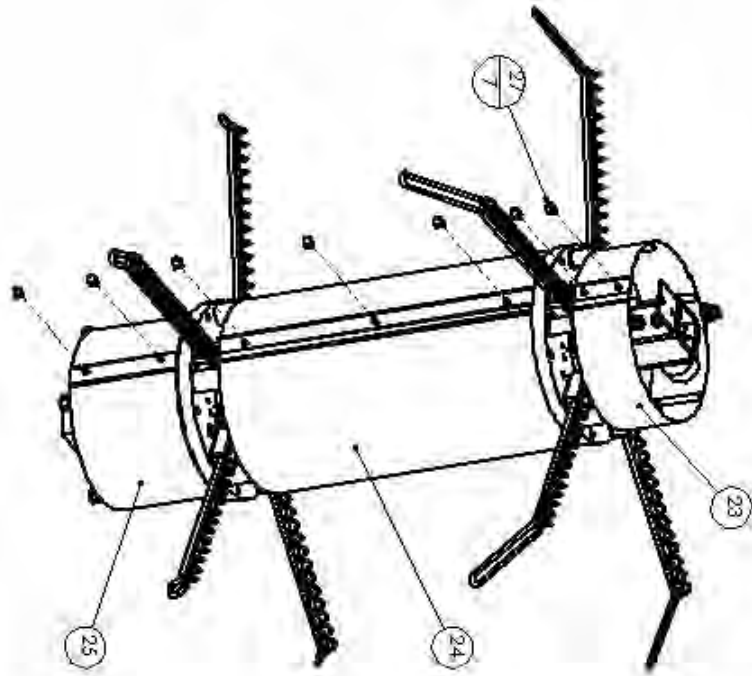
Most circuit boards are accessed by removing the **pcb cover**① and sliding the pcb drawer out. There is an expander board located within the dial assembly. This board is accessed by removing the **dial cover**② and artwork. Remove **decorative screw caps**③ to access the screws that fasten the cover.



The Stop It machine uses these boards:

- (1) **Controller**<sup>④</sup>
  - The controller board has three status LED's. One to indicate 5V, one to indicate 12V, and one to indicate the microprocessor is running.
- (1) **Single Stepper Controller**<sup>⑤</sup>
  - The single stepper controller has
- (1) **Power Distribution**<sup>⑥</sup>
  - The power distribution board contains many led's indicating the status of each circuit
- (1) **LCD display**<sup>⑦</sup>
- (1) **Expander**<sup>⑧</sup>

REV#	PART NUMBER	DESCRIPTION	EXPLODE#	QTY
1	103MA-C0-42	center post assy s33		1
2	103ASW003	prize plate 1.5 am		1
3	prize plate 4.5 am	gearbox plastic revised		3
4	87ASW039	post mount bracket		1
5	77SHW008	bearing rod		1
6	77SCW011	bearing rod sleeve		2
7	77SCW012	spacer		2
8	bmjToolWritefor3ste eve	opto 4070 right angle		1
9	PCB009	opto mount plate s3m		1
10	103SHW002	snout washer tree spacer		5
11	77SCW008	motor assy complete r tree		1
12	103ASW009	center post mount bracket top		1
13	87SHW028	motor bracket top		2
14	not #10 r cap	spacer prize tree r3r		5
15	103EXT010	CR-PRMSV-112- 40X0.375X0.375-N		6
16	CR-PRMSV-112- 40X0.375X0.375-N	CR-PRMSV-112- 40X0.375X0.375-N		4
17	CR-PRMSV-112- 32X0.25X0.25-N	CR-PRMSV-112- 32X0.25X0.25-N		2
18	CR-PRMSV-112- 32X0.375X0.375-N	CR-PRMSV-112- 32X0.375X0.375-N		1
19	CR-PRMSV-112- 32X0.189X0.189-N	CR-PRMSV-112- 32X0.189X0.189-N		10
20	not #10 r cap	not #10 r cap		5
21	not #10 r cap	not #10 r cap		5
22	313dick5760xdk6875 spacer			1
23	prize tree cover assy			1
24	prize tree cover center assy			1
25	prize tree cover bottom arm			2
26	SPTCSCREW025- 20X0.25-HX-N			7
27	ATCNDT01580-32-N			5
28	103SCW004	tree assembly stud		5



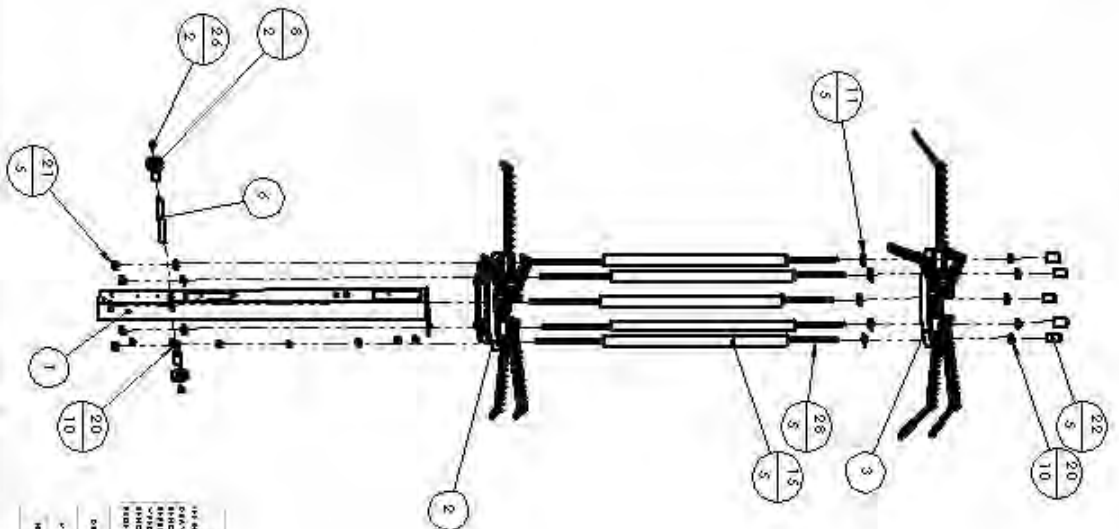
REV#	DESCRIPTION	DATE
1		02/01/10

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**Benchmark Games**  
**prize tree s33**  
 SEE DWG. NO. **B**  
 103ASW013  
 SCALE: 1X WEIGHT: SHEET 8 OF 8  
 REV



ITEM NO.	PART NUMBER	DESCRIPTION	EXPLODEZ/CNT.
1	103WAC042	centerpost assy ss3	1
2	103ASW003	prize plate 1.5 am	1
3	prize plate 4.5 am		1
4	87ASW039	gearbox plastic revised	3
5	773HW08	post mount bracket	1
6	773CW11	beating rod	1
7	773CW12	beating rod sleeve	2
8	dmg_ball_waterton_gie eye		2
9	PC 8009	opto 4070 right angle	1
10	103SHW002	opto mount plate shim	1
11	773CW008	shoulder spacer	3
12	103ASW009	motorassy complete ft tree	1
13	873HW28	centerpost mount bracket top	1
14	nut # 10 kep		2
15	103EXT010	spacer prize tree ftr	3
16	CE-FHW05 0.112-40X0.375X0.375-N		6
17	CE-FHW05 0.108-32X0.25X0.25-N		4
18	CE-FHW05 0.119-32X0.375X0.375-N		2
19	CE-FHW05 0.138-32X0.188X0.188-N		1
20	HNUT 0.3750-1/2-D-N		10
21	nut flberock 250_20		5
22	3181d3780d1x8.75 spacer		5
24	38H05C4REW0.25-20X0.25-H-X-N		2
26	103SCW004	tree assm diy stud	3



REV	DATE	DESCRIPTION
1	02/01/19	

**Benchmark Games**

**TITLE:** Prize Wheel SS3

**PART NO.:** 103ASW013

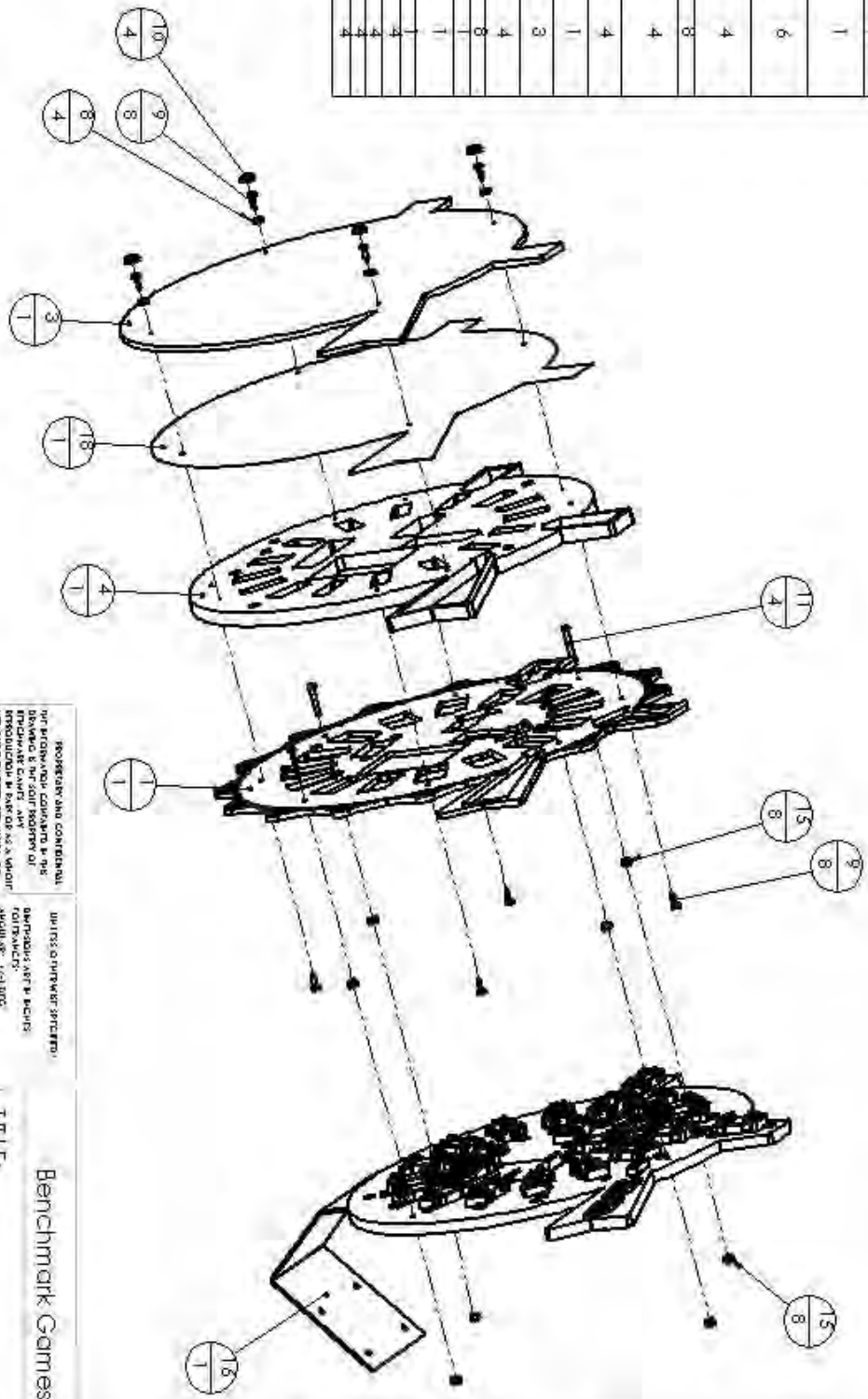
**REV:**

**SCALE:** 1:8 **WEIGHT:** **SHEET 2 OF 2**

**DATE:** 02/01/19

**REV:**

ITEM#	PART NUMBER	DESCRIPTION	conting 2/ QTY
1	103MIA C009	digital back tr	1
2	ELM052	led string lighting red	17
3	103MIA C010	digital cover tr	1
4	103MIA C041	digital locator plate tr	1
5	103MIA C011	pcb expander 485_1610	1
6	PCB038	led string lighting single white	6
7	ELM035	decorative screw cap washer	4
8	HA R059	decorative screw cap washer	4
9	#103625 PPSIM	decorative screw cap #10 yellow	4
10	HA R051	decorative screw cap #10 yellow	4
11	CR-PHMS 019-32X1.25X1.4N		4
12	CR-PHMS 019-32X1.8X1.4N		1
13	CR-PHMS 019-32X0.75X0.75-N		3
14	CR-PHMS 0112-40X0.875X0.875-N		4
15	NOT DETROCK 1032		8
16	103SHW001	digital bracket	1
17	ELM054	led module 3 light white	1
18	Digital	led module 3 light white	1
19	not #10369	digital gnttler	4
20	#48300 PPSIM		4
21	NOT DETROCK 240		4
22	Digital	not #0369	4



REV	DATE	DESCRIPTION
1		

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UNITS: DIMENSIONS  
 DIMENSIONS ARE IN INCHES  
 DECIMALS ARE IN THOUSANDS  
 ANGLES ARE IN DEGREES  
 XXXX = 0.0005  
 XXXX = 0.0005

**TITLE:**  
 digital ass'y tr

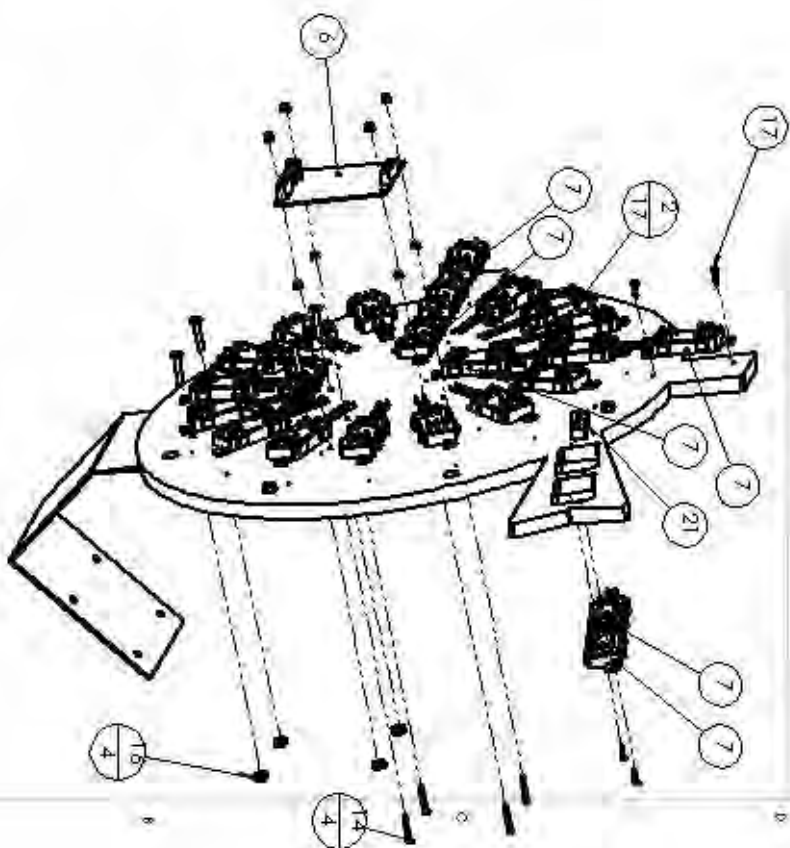
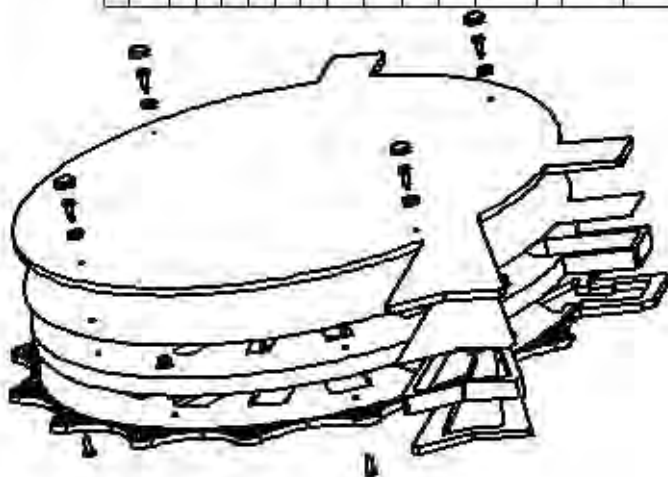
**Benchmark Games**

**REV** **DWG. NO.** **REV**  
**B** 103A SM002

**SCALE:** 1:3 **WEIGHTS:** **\$HEET 2 OF 2**

ITEM NO.	PART NUMBER	DESCRIPTION	Quantity
1	103MA C009	dad back r	1
2	ELM052	led string lighting red	17
3	103MA C010	dad cover r	1
4	103MA C041	dad locator plate r	1
5	103MA C011	pcb expander 485-1610	1
6	PCB038	led string lighting single white	6
7	ELM035	decorative screw cap washer	4
8	HA R053	decorative screw cap washer	4
9	#10x625 PFSM	decorative screw cap #10 yellow	4
10	HA R051	decorative screw cap #10 yellow	4
11	CR-FHMS 0-19-32x1-25x1-N		4
12	CR-FHMS 0-19-32x1-25x1-N		1
13	CR-FHMS 0-19-32x0.75x0.75-N		3
14	CR-FHMS 0-19-40x0.875x0.875-N		4
15	nut flange lock T032		8
16	nut #10 keep		4
17	#4x500 PFSM		4
18	nut flange lock 440		4
19	Detail		4
20	103SHW001	dad bracket	1
21	ELM054	led module 3 light white	1
22	Detail	dad of r	1

Note:  
Use #4x500 PFSM to mount all of the led string light modules



DATE: 01/29/10  
 DRAWN BY: 1  
 CHECKED BY: 1  
 PART: Prototype Release

APPROVAL AND COMMENT:  
 HAS THIS ASSEMBLY BEEN TESTED WITH PROTOTYPE RELEASE PARTS?  
 YES/NO/NOT TESTED/NOT TESTED BY:  
 APPROVED FOR RELEASE?  
 APPROVED FOR RELEASE?  
 APPROVED FOR RELEASE?

DATE OF PART RELEASE:  
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**Benchmark Games**  
 TITLE:  
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SEE DWG NO. B 103ASW002  
 SCALE: 1:1 WEIGHT: SHEET 1 OF 2