Product Dissection & Benchmarking Project Handout III
Dissection. Estimated time: 2 hours

Preparation before beginning the Lab:
Read *Product Teardown and Experimentation* by Otto and Wood Handout.

Section:	004
Team #:	2
Team Name:	Reanimation
Members:	Emily Wolf
	Tom Harford
	Rob Heisler
	Brianna Post

Lab II Assignments:
Complete data sheet 3.

Laboratory Tools:
1. Camera
2. Hack saw
3. Screw driver
4. Pliers
5. Ziplock bags

I. Dissection:

<u>Note: This lab should only be done if all interviews and Lab II are complete!!!</u>

Tasks:
1. Disassemble, measure, and analyze function of each component. Record your findings in the Bill of Materials (BOM) table in data sheet 3.
2. Insert pictures to the visuals table in data sheet 3. Indicate names of the components as you have given in the previous table.
3. Study and indicate (using a tree structure) how components, subassemblies, and final assembly relate to each other on data sheet 3.

DATA SHEET III

Bill of Materials

Product Manufacturer/Model Number: Oral B

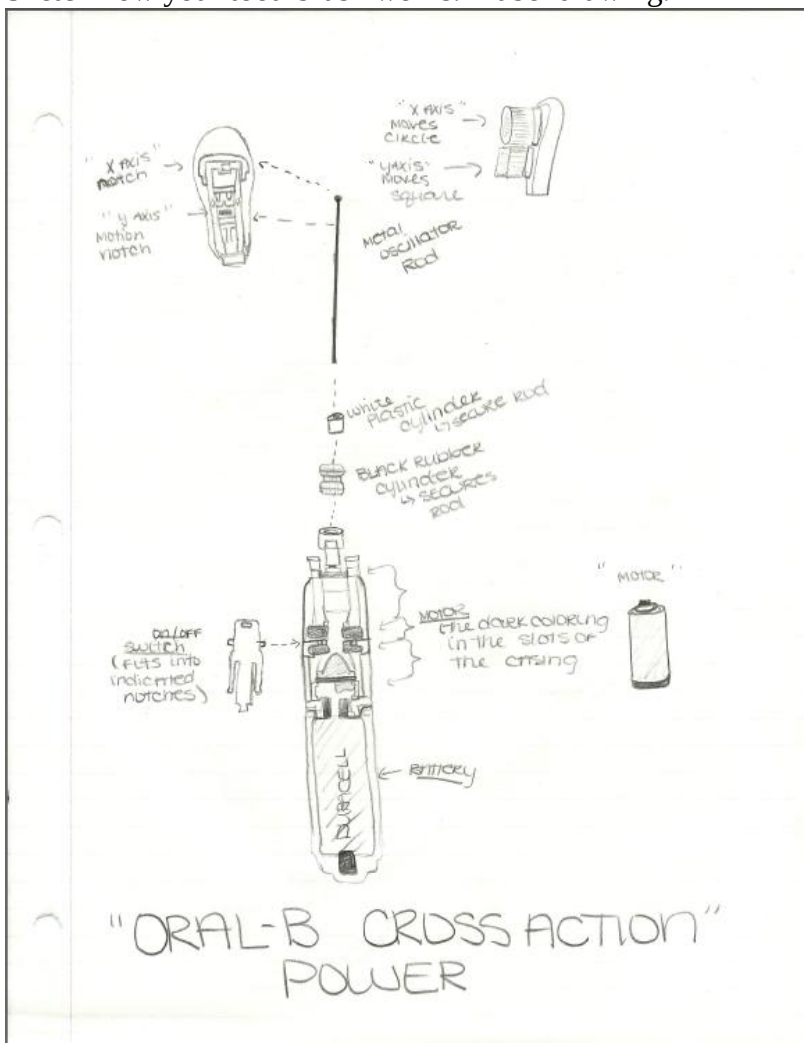
Date: January 27, 2010

Team #: 2

Disassembly method: Take apart
Subtract and Operate Procedure (SOP): Yes, No.

Part#	Part Name	QTY	SOP Effect	Function	Mass (lbs)	Material	Manuf. Process	Dimensions (in.)	Cost - estimate
1	Brush Head	1	Yes	Brush Teeth	.008	Plastic, metal, nylon	Plastic – injection, metal – punch, nylon - extruding	1.625x0.5x0.75	$1.00
2	Battery Cover	1	Yes	Protect from water	.012	Plastic	Injection	2.5x0.875x 0.875	$0.10
3	O ring	1	Yes	Seal out water	n/a	Rubber	Purchased	0.0625x0.875x 0.875	$0.02
4	Battery	1	No	Power brush	.054	Alkaline	Purchased	1.9375x0.5x0.5	$1.25
5	Motor	1	No	Provides motion for silver rod	.042	Plastic and metal	Purchased	4.5x0.625x 0.5625	$1.50
6	Casing	1	Yes	Houses the motor/battery	.044	Plastic and rubber	Plastic – injection, rubber – injection	5.5x0.8125x 0.8125	$0.50
7	On-off Switch	1	Yes	Turns brush on and off	.002	Plastic	Purchased	1.25x0.5x0.125	$0.10
8	Brush Head Cover	1	Yes	Protects brush when not in use	.008	Plastic	Injection	3.8125x0.75x0.75	$0.08
9	Silver rod	1	No	Motion for brush head	.004	Metal	Wire form	3.8125x0.125x 0.125	$0.20
10	White Hollow cylinder	1	No	Pivot point for silver rod	n/a	Plastic	Injection	0.25x0.25x0.25	$0.01
11	Rubber Hollow Cylinder	1	No	Holds rod in place	n/a	Rubber	Injection	0.3125x0.25x0.25	$0.02

Visuals: Component pictures, sketches and/or solid models	

DATA SHEET III

Sketch how your toothbrush works. Label drawing.