

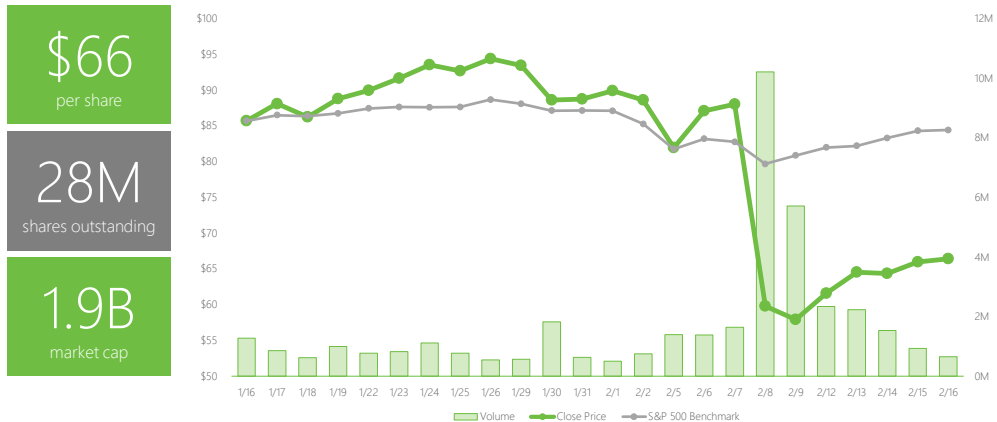
iRobot®

Sustainability Issues

Eugene Kow

iRobot

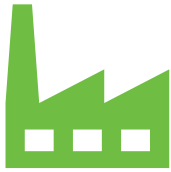
Financial Update



iRobot

Since the last month, the stock price of iRobot dropped a whopping -30% leading to a ton of articles including one from the Motley Fool ([link](#)). Despite still showing massive revenue growth in the past quarter and raising its full year revenue range, its earnings per share was lower than investors were expecting. The company's CEO clarified that with "the market accelerating in its growth and competitive pressure coming into the markets, we made a choice to double down on ensuring we had adequate dry powder to drive that top-line growth."

Investors interpreted this as acknowledging that the larger-sized competitors of Shark and Dyson are ramping up their efforts, and that the long term potential of this company might be at risk. While iRobot is recognized in the robotic vacuum space, these other competitors are more broadly recognized as top-tier vacuum makers, especially Dyson with its innovative mechanical design. Thus, it makes sense the stock price which represents future earnings took a dip despite the company focusing even more on R&D and product development.



Manufacturing
Methods



Recycling &
Product Disposal



Material Sourcing



Corporate Social
Responsibility



Manufacturing Methods



Recycling & Product Disposal



Material Sourcing



Corporate Social Responsibility

iRobot Plants in China



Newsweek

IPHONE X RELEASE: THE HUMAN COST OF APPLE'S MOST EXPENSIVE IPHONE EVER

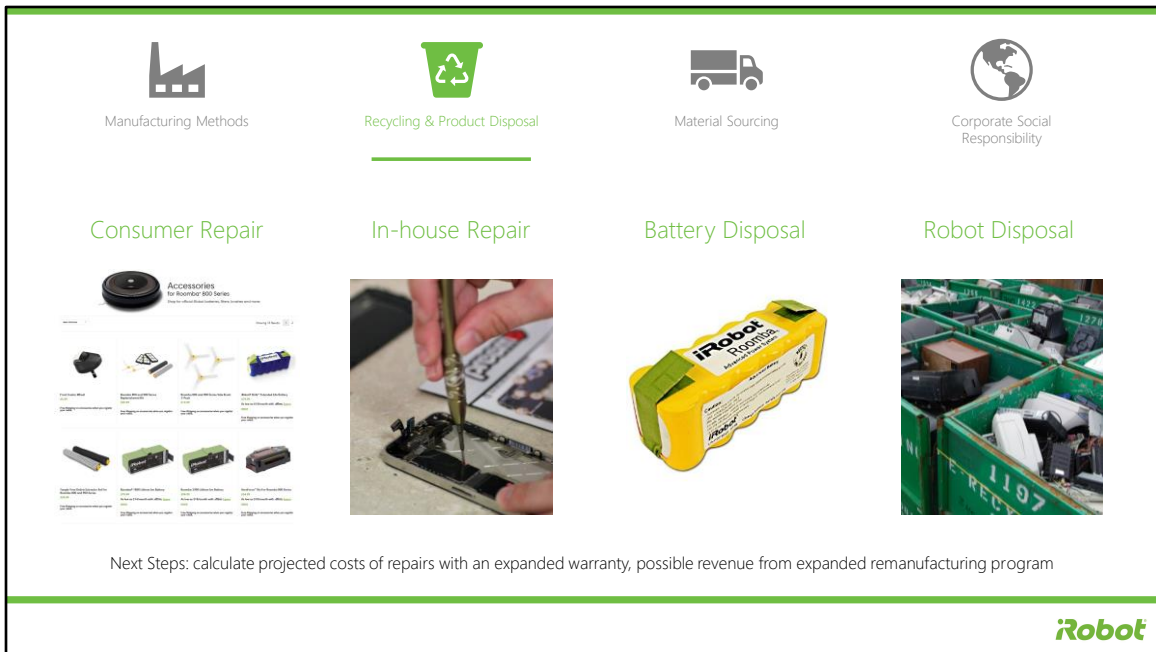
Chinese students claim they worked illegal overtime making the iPhone X



Next steps: understand cost of relocating manufacturing regionally to America/EMEA, associated de-risking of what % of workforce



(2) Manufacturing methods. Like most consumer electronic products, iRobot's products are manufactured in China ([link](#)) and thus issues around minimum wage, living conditions, working conditions, child labor laws, etc. that have been reported for other American companies like Apple could at some point become an issue. Also, since they outsource their manufacturing, any disruption in its manufacturer's financials or workforce could cause price/quality spikes with its products and drive costs up or perception issues with consumers.



(2) Recycling & product disposal. The machines that iRobot manufactures contains not just the regular electric motor, plastic, and metal that most vacuums come with, but instead e-waste such as circuit boards, lithium batteries, etc. Depending on how customers either send back devices that are broken or unused, iRobot will need to have a process to handle the proper disposal of such waste in accordance to local laws. With the increase in revenue volumes of 30-50% per year, this could become a much larger problem very soon. CENTRALIZED REPAIRS already identified as a profitability improvement in its investor deck.

Today iRobot has four avenues for servicing/disposing of its robots:

- It offers an online parts store where consumers can buy parts as well as some basic guides as to how to fix at home.
- Additionally, a customer can contact iRobot customer care for in-house repairs which likely services the 30-day full warranty and 1-year limited warranty. This pales in comparison to Dyson who offers a 5-year limited warranty and having entered the market may drive the expectation for longer warranties and better lasting products.
- Each Roomba comes with batteries which are known for their toxic materials. Today, these are commonly disposed of through local recycling programs.

- Finally, once the Roomba reaches end of life, iRobot recommends disposing of it in conventional manners. Most consumer electronics companies (Apple, Sony, Dyson) offer returns of old products either to their retail stores or paid postage to a certified recycling contractor with some even giving store credit for returns. iRobot does have a remanufacturing program but it doesn't look like it is actively taking back old products.

<https://www.treehugger.com/gadgets/irobot-says-just-throw-your-broken-scooba-in-the-garbage-we-have-5-better-ideas.html>



Manufacturing Methods



Recycling & Product Disposal



Material Sourcing



Corporate Social Responsibility

Africa's broken heart Congo is sliding back to bloodshed

How to stop a catastrophe



©: Photo addition | Leaders + Feb 19th 2018



NO CONFLICT since the 1940s has been bloodier, completely ignored. Estimates of the death toll in 2002 range from roughly 100 to more than 100,000. Taking the midpoint, the cost in lives was Syria, Iraq, Vietnam or Korea. Yet scarcely any out fighting was about or who was killing whom. Why the great war at the heart of Africa might be about

Cobalt mining, China, and the fight for Congo's minerals

Published on February 2, 2017 — by Lisa Clarke

The Democratic Republic of the Congo (DRC) is attempting to increase revenue from the 2016 surge in cobalt prices by allowing Chinese firms to mine the rich, still largely untapped reserves and companies who benefit from lower cobalt prices have promised the use of the Congo's rich but the world's most reserves. A key component of the strategic alliance is to balance that power between and African nations.



<https://tradingeconomics.com/commodity/lithium>

Next Steps: understand impact of remanufacturing or recycling materials, the PR costs associated with acquiring freshly-mined minerals



(3) Material sourcing. The company also discusses its efforts around conflict minerals ([link](#)) and requires its suppliers to ensure they are not sourcing from this particular region in the Democratic Republic of Congo. The company specifically uses gold, tin, tantalum, and tungsten in its products, and any changes in supply or demand of these minerals could cause risk to profitability and company perception among consumers for its efforts to responsibly source.

The collage features four main icons at the top: a factory for 'Manufacturing Methods', a recycling symbol for 'Recycling & Product Disposal', a truck for 'Material Sourcing', and a globe for 'Corporate Social Responsibility'. Below these are four overlapping screenshots of corporate websites:

- Dyson:** Shows 'Corporate Social Responsibility' and 'Environmental Sustainability' sections with the headline 'Above and Beyond'.
- Whirlpool:** Focuses on 'Environmental Sustainability' with the tagline 'Embracing our role'.
- Philips:** Features a 'Sustainability' section with the headline 'Meaningful Innovation at Philips'.
- Panasonic:** Displays 'Sustainability Initiatives' and 'Panasonic Environment Vision 2050', which aims for 'towards creation and more efficient utilization of energy which exceeds the amount of energy used'.

Next Steps: cost to create a public-facing CSR team vs. possible strengthening of market position relative to competitors

iRobot

(5) Corporate Social Responsibility. Compared to competitors like Dyson ([link](#)), iRobot barely discusses these above issues outside of the required regulatory disclosures. Without a proper communication channel to consumers and regulators, this could leave iRobot behind its peers when regulations change or if consumer expectations shift dramatically as it has in other industries. However, currently consumers don't necessarily get this information as part of any purchasing platform (brick & mortar retail, Amazon, etc.) so this may be only important to a particular set of LOHAS-focused ones.

Wrap-up

Q&A

iRobot

Profitability Improvement Opportunities

Gross Margin Improvement

Operating Expense Leverage

Business Maturity

Example: Taking more direct control in China, Japan and EMEA

Scale

Examples: More than 2.5 million robots in 2016
Driving Wet Floor Care to scale

Efficiency

Examples: Automation in factories
Centralized repairs
Marketing Mix Analytics

Opportunities for both Gross Margin and Opex improvement



December 5, 2017

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