

# Project Deliverable H

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#### Economics Report:

1. Include a list of: variable, fixed, direct and indirect costs associated with your business, based on the manufacturing and sale of your product. Make sure that you distinguish between price and cost and realize that prototyping and higher-volume manufacturing costs will probably differ.

|                 |  |
|-----------------|--|
| Variable Costs: | Cost of labour to manufacture product: \$72 per set (4 man hours at \$18/hour)<br>Cost of Materials: \$32 per set (Plastic to mold into ski: 1kg at \$1/kg, Aluminium plate 10lb at \$3/lb: \$30, Misc screws, bolts, paint, etc:\$1 )<br>Shipping: \$20 for inside Canada |
| Fixed Costs:    | Cost of Shopify Subscription: \$79 per month,  |
| Direct Costs:   | Cost of parts  |
| Indirect Costs: | Factory building rent, quality control staff salary, depreciation of manufacturing equipment   |

2. Develop a 3-year income statement, which includes: sales revenue and costs of goods sold for each year, gross profit, operating expenses and operating income (no need to include interest and taxes).

#### Income statement spreadsheet

<https://docs.google.com/spreadsheets/d/1leVVPz11dotWmFBYIVtJ6VejIaNBfau88XP06lm7h7g/edit?usp=sharing>

3. Using a NPV analysis, determine the break-even point (it is highly unlikely that your operating income will be positive in the first year because of fixed costs).

Formula:  $\text{fixed costs} / (\text{price} - \text{costs}) = \text{break even point}$

\$150048 : fixed costs

Price/unit: \$249.99

Cost to produce one unit: \$124

$150048 / (249.99 - 124) = \mathbf{126 \text{ (units)}}$  is the break-even point.

4. Describe and justify all assumptions that you have made in developing your economics report.
  - There are 200,000 people in Canada using wheelchairs, according to Statistics Canada. Our assumptions are the following: 0.25% of those 200,000 would buy our product, that is 500 people. We are aiming for 500 the first year, 1000 the second, 1500 the third year.

We are aiming for a price-point of \$249.99 (compared to \$300 for our competitor *Wheel Blades*)

Reference:

[Needs for mobility devices, home modifications and personal assistance among Canadians with disabilities](#)