

Indoor Exercise for Low Income Children



Indoor Exercise for Low Income Children in Toronto

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Background Information

- A Statistics Canada survey shows that **38%** of the children population falls under the category of obese or overweight [1]



Problem statement

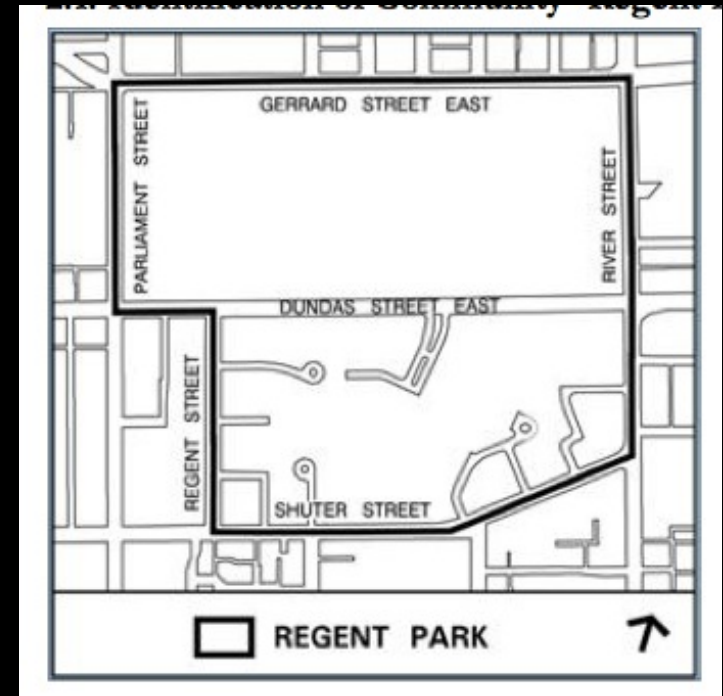
Studies in Canada have shown an **inverse correlation** between neighborhood social- status and children obesity



Major community Regent Park

Family income <20000 CAD/
year[3]

Safety condition of
external areas is not
satisfactory for children
to do exercises [4]

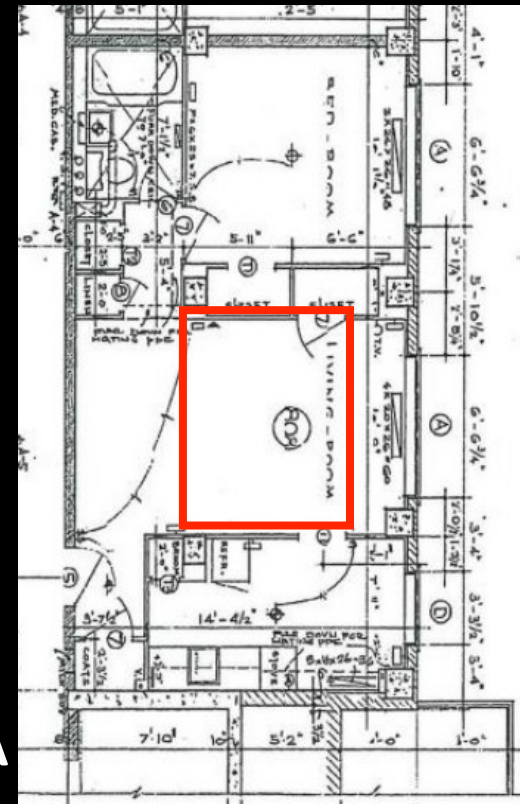


Objectives

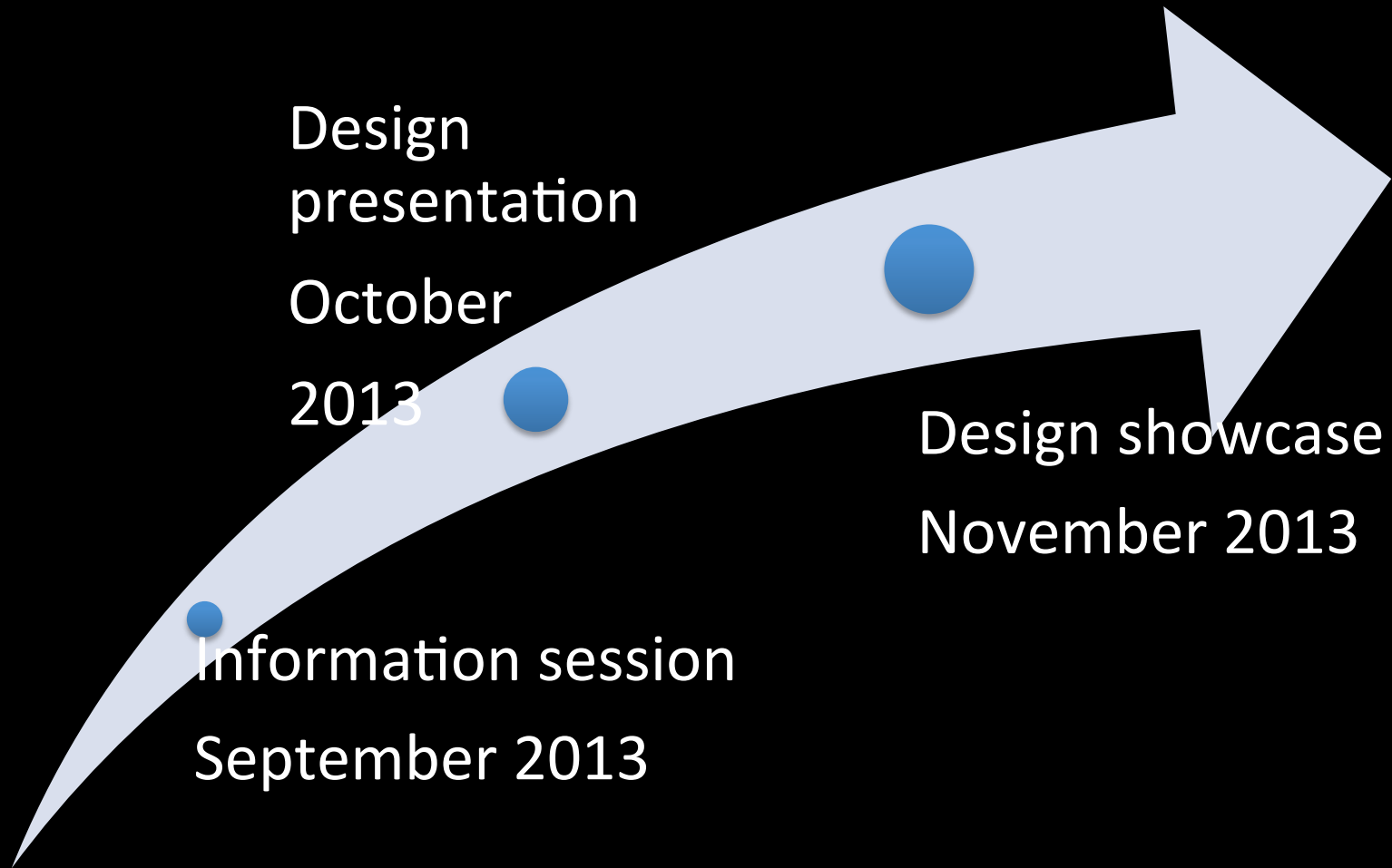
- Primary objective
 - Design an indoor exercise for low income children in Major Community, Regent Park
- Secondary objective
 - Reduce Calorie consumption
 - Safety
 - Cost
 - Fun

Constraints

- Must be safe for children
- Less than 100 CAD [5]
- Not be gender specific
- Noise production less than 60 dbA
- Less than 8 m²



Timeline



Estimated Budget

Posters for information session

100 CAD

Showcase

500 CAD

Total 600 CAD

Partners

- First & second year engineering students
- Faculty of Applied Science and Engineering, University of Toronto
- Engineering Leader of Tomorrow
- Youth Peace Ambassador International
- Childhood Obesity Foundation, Toronto
- Public Health Division, Toronto

Follow up

- Send the best five designs to toy manufacturers
- Action plan report session to inspire engineering students to help low income children

Contact information

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Reference

- [1] “Morning Pride® Turnout Gear. Extraordinary Performance and Reliability.” Internet:
<http://www.honeywellfirstresponder.com/Documents/CatalogPDFFiles/MorningPrideClothingBrochure2012.pdf> June, 2012 [April.10, 2013].
- [2] “NFPA Jacket and Pants: Performance Requirements.” Internet:
<http://www.globeturnoutgear.com/uploads/st/NFPA1.pdf> [April. 10, 2013].
- [3] “InstaKool™ Material Safety Data Sheet Urea.” Internet:
<http://www.nortechlabs.com/instakool-msds.pdf> Dec. 2013 [April. 10, 2013].
- [4] “Polar Fleece.” Internet:
<http://fabricsinternational.wetpaint.com/page/Polar+fleece> [April. 10, 2013].