S.H.I.E.L.D.
(Stairwell Home & Industrial Emergency Lighting Design)

Team 5

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http://www.instructables.com/id/Automatic-Led-Stairs-Controller
S.H.I.E.L.D.
Description

- Purpose of Product – Provides safety measures in the case of an emergency
- Feature 1 - Automatically illuminates stairwell when Person approaches
- Feature 2 - Counts the number of people above or below the main level for emergency first response
- Feature 3 - Has backup emergency lighting if Main power is lost
- Feature 4 - Intelligent lighting based on ambient light
- Market - USA
Key Requirements

• Cost
  ● Sales Price: $275.00, Component Cost: $140.00, Assembly & Test Costs: $60.00

• Environment: Indoor, Stationary
  ● Operating Temperature: 10°C-40°C
  ● Operating Humidity Range (0%-80%)

• Power Inputs:
  ● Residential AC Power (102-132V@60Hz & Max 3.2Amps)

• Major Functions:
  ● Automatically illuminates stairwell when Person approaches
  ● Counts the number of people above or below the main level
  ● Has backup emergency lighting if Main power is lost
  ● Intelligent lighting based on ambient light
Detailed Block Diagram