

ME450 Project Proposal
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AWARE: Social and Environmental Sustainability through Informing
Consumer Decisions

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This project involves design and prototyping of a handheld or "keychain" device for consumers to use while shopping to obtain information about the social and environmental impact of the products they purchase. The intention is to see how much consumers might change their purchasing habits if they knew something about the social and environmental impact of different products. The details of the device will depend on the decisions of the design team, but it is expected that it will use a small barcode scanner to identify the product of interest and a programmable logic board to read the barcode, cross reference the item with a database such as responsibleshopper.org (potentially through a wireless connection), and light up an appropriate LED to indicate the social/environmental impact ratings of that product. Design work would also involve concept and form exploration and could involve learning about life cycle analysis. The AWARE team is centered in the Mechanical Engineering Department at the University of Michigan and would be available to work closely with the ME450 team. The completed prototype will be taken to Washington DC in May for an EPA design competition.