

Re-Use and/or Disposal of Disposable Diapers

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PURPOSE OF PROJECT Diapers are thrown away as a method of disposing them, these result in litter as they contain plastic which is non-biodegradable therefore polluting the environment as well as emitting an unpleasant smell. Stray dogs tear them apart in the dumpsites, increasing the risk of diseases to children who play around the dump sites. Burning the diapers causes air pollution and flushing them down blocks systems therefore the researcher found a way of reducing the environmental impact of diapers by cleaning and drying them in order for one to re-use the diapers. The researcher visited Waterfalls clinic to collect statistics on waterborne diseases that result from dumpsites. **PROCEDURE/ METHOD** An interview guide was used to find out what parents needed with regard to disposable diapers. The interviewees indicated that they needed an affordable, reliable, durable and self sustaining diaper cleaning machine. A background check was carried out to find out if such a system exists. Currently, there is no gadget that cleans the diapers. A gadget could be made to clean and dry diapers. The researcher drew visualized sketches and models of systems which attempted to clean diapers. Computer modelling was also used to design possible solutions. Out of the possible solutions sketched one was selected and constructed. An old fan motor connected to a power source was used to give circular motion to a used disposable diaper which was wrapped around a rod attached to the motor. The diaper was cleaned as it rotated in a recycled bucket containing water, scrubs and disinfectants. A drier was made from heat conducting materials to dry the cleaned diapers. **CONCLUSION** The gadget successfully cleaned the diapers and dried them. It successfully removed all the dirt.