



Whirlpool MSU Senior Project Proposal:



Whirlpool builds an approximately 3 million washers of the type shown in the picture every year in multiple configurations. These washers are simple in the user interface having a common central encoder for cycle selection and simple set of LED's to show status. While the

focus here will be top load washers, Whirlpool produces millions more appliances that could benefit the customer and field service by getting more information from their appliance. For this project the team will need to develop a method of communicating over the available leds and communicating with a smart phone. The team will need to recreate the LED matrix with a micro device and develop an smart phone application that will read the LED(s) and create a communication protocol that can send status and error information. The idea is that the smartphone app reads the LED sequence via the camera and is able to decipher protocol.



: LED communication preferred method would be one LED that strobes data while still visible with minimal flicker, thus enabling real-time data collection and data from the appliance . Alternate solutions would be to use the available LED's in a "service mode" and strobe patterns that the service technician could use to retrieve service data.

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