Our project idea is to redesign the common parking meter to make it more visually appealing and practical to use. Our new design will turn the meter into a dome shape, with a small LCD display and coin-slot as found in the current meters. Inside the dome will be some sort of colored light source that projects onto the dome, exposing the outside surface of the dome as a certain color. When the meter is available to park in, it will glow green vibrantly. After the user has parked and inserted money, the lights within the meter will turn off. As the user's time winds down, a yellow light within the meter will begin to glow brighter and brighter, until the user reaches a set interval, say two minutes, when the meter begins to pulse yellow. After the meter expires, the color will instantly switch to solid green. In the event that a meter is free to park without pay, the coin slot will close and the light will turn off.

Our new meter will also incorporate a text-messaging alert feature. After the user inputs money to the meter, he or she can send a text message to a specified number with the meter's identification number. The meter will then respond to the user when his or her meter starts pulsing, so he or she is aware that the meter is about to expire.

Our motivation for this project is mainly to improve the practicality of the meters. With our design, it will be easier for the user to spot how much time is left in his or her meter from the window of a restaurant. The text messaging feature will also allow users who are indoors away from the meter to get updates on the status, reducing the potential to forget about being parked in a spot. Law enforcement could also use this to easier see which meters are being overparked in, and more easily issue tickets.

The audience for our project is anyone who has used a meter before, say to park for a class or meeting or such, and would like more feedback as to how long he or she has. Other people interested in this might be people who look for meters with extra change available, or people who are looking for a
place to park and can't tell if the spot on the other side of the truck is taken or not. We would also keep all
the original information of the meter available on the LCD screen, just in case our meter needed to be
used by colorblind persons.

Our project for this semester entails the creation of software to model and simulate the function of
the meter, as well as other software to handle the text-messaging transactions. We plan to demo how the
meter operates and show all of the features we've mentioned above.