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|  | *Cost-Effective Food Monitoring System* |
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|  | *Cost-Effective Food Monitoring System* |

**Design Impact**

1. **Cultural**

The food monitoring system may reduce excessive buying, since users will be more informed about the quantity of food that they can use without having to dispose of expired products.

1. **Economic**

While there is an initial cost for the system equipment, the user will likely save a considerable amount of money by not wasting as much food as before, since they are notified of expiring foods before they are no longer safe to eat.

1. **Environmental**

Large quantities of foods are disposed of when no longer safe to eat, which wastes many environmental resources used in the creation of these products. Using a food monitoring system can help to mitigate this issue by notifying users to consume products before they expire.

1. **Global**

The simplicity of the food monitoring system means that nearly any individual with a smartphone can use it. All that is needed is NFC tags, a smartphone, internet access, and temperature probes, if desired.

1. **Public health and safety**

The expiration reminders provided by the food monitoring system’s app can ensure that users do not consume expired food products. In addition, the temperature probes can alert users to hazardous meat products that could potentially cause severe illnesses if consumed.

1. **Public welfare**

The food monitoring system provides a means of monitoring expired food that can be used in a small setting or a large setting. For example, a company employee could use the food monitoring system to ensure expiration dates of a large inventory. The NFC tags are straightforward and easy to use, and could be pre-programmed from suppliers. Tracking expiration dates for a large inventory can have significant positive impacts on food safety within the company.

1. **Social**

The food monitoring system’s NFC tag functionality, and pre-programmed item data from the store, can provide accessibility for older individuals or individuals with weak eyesight. When pre-programmed products are scanned, the expiration data is automatically stored, and the user can be notified before the expiration date by the system’s app, even if the user themself may not know the expiration date.

The smart functionality of the food monitoring system, and the expiration date reminders, can help to instill more knowledge on expiration dates to users, and promote food safety in general.