

# Personalized Blister Packaging System for Prescription Pharmaceutical Drugs

**Status:**

Filled

have a low error rate this activity is not expected to be particularly time consuming.) The incorporation of pill identification, automated blister package sealing and a central patient/drug repository will be left for a later implementation.

The initial approach will involve a broad top level design, followed by a round of components sourcing and feasibility studies for implementation strategies. In specific, the system will require PID controlled actuators for controlling the blister pack and a pill dispensing mechanism with variable aperture to accommodate different sized pills. The above mentioned have been articulated in the immediate milestones section.

***Immediate Milestones:***

1. Market research, feasibility studies and design selection.
2. High level design CAD modeling of different implementation strategies (parallel/serial sorting)
3. PID controller design of blister pack control and drug dispensing via aperture control
4. Selection of micro-controller, sensors, motors, interface medium, and materials for prototype fabrication
5. Platform selection and GUI design for pharmacist interaction
6. Initial prototype design and optimization based on test results
7. Creation of full scale prototype and application

***Future Milestones:***

8. Sensor design for pill/drug identification
9. Possible integration to sealing (thermal or adhesive) automation of blister packs
10. Drug splitting (to half or quarter dosages)
11. Creating database framework for patient/drug repository that has instant synchronization capability.