# Digital Key Storage System

The Digital Key Storage System utilizes the Arduino Uno and the USB host shield to create a secure platform for managing and storing encrypted digital keys or passwords on a USB flash drive. The primary goal of this project is to provide a portable and secure solution for handling sensitive information, such as cryptographic keys, authentication tokens, and access credentials.  
  
In this system, the Arduino Uno acts as the control unit, managing the interaction between the host shield and the USB drive. The project ensures data security by implementing encryption algorithms and access control mechanisms to prevent unauthorized access to the stored keys. Users can securely retrieve and manage their credentials without exposing them to external threats or internet-based attacks.  
  
The Digital Key Storage System can be used in various applications, including secure communication protocols, encrypted file management, and secure login authentication. By leveraging the portability of the USB drive and the simplicity of the Arduino platform, this system provides a reliable and cost-effective solution for protecting sensitive data. Additional features, such as backup and recovery options, multi-user access management, and audit logging, can further enhance the system's functionality. A future extension could involve integrating biometric authentication for an added layer of security.  
  
Moreover, the system can generate temporary access keys for time-bound authentication, adding another layer of control and security.