**Architecture**

The program consists of two decupled primary modules: application layer and link layer. On the other hand, the link layer module depends on a set of secondary modules: alarm, serial port and utilities.

The link layer is a set of functions that create an API. It’s responsible for developing a protocol that allows it to open/close the serial port connection, read/write data from/to the serial port buffer and recover from errors and interruptions.

The application layer is a generic program that uses the link layer API to send data through a serial port. Its purpose is to read a file’s data and call the link layer functions to open/close the serial port and read/write the data. It’s responsible for adopting an application-specific protocol, so that both sender and receiver work in sync.

**Code Structure**

**Call stack**

**Main data structures**

**Main functions**