

**Low-Level Communication Protocol (LLCP)**

**Interface:** C, llcp.h  
**Requirements:** `&send_char()`, `&get_char()`  
**Provides:** `send_message(&msg)`  
`parse_message(&char)`  
message definitions

**LLCP Message Definitions (LLCPM)**

**Interface:** C, llcp\_minipix\_messages.h  
Python, structures.py  
**Provides:** *Data structures for bi-directional communication with MiniPIX.*

**MiniPIX UART Interface (MUI)**

**Interface:** C, mui.h  
**Requirements:** **LLCP** **LLCPM**  
**Provides:** `measureFrame(&acq_time)`  
`startStream(&duty_cycle)`  
`getStatus()`

**Gatherer UART Interface (GUI)**

**Interface:** C, gatherer\_interface.h  
**Requirements:** **LLCP** **LLCPM**  
**Provides:** *Retranslation of commands and messages from the example to the Data Gatherer on PC*

**Data Decoder**

**Interface:** Python  
**Requirements:** **LLCPM**  
**Provides:** Stitches images from the LLCPM packets

**MiniPIX TPX3 Dummy**

**Interface:** C++, minipix\_dumy.h  
**Requirements:** **LLCP** **LLCPM**  
**Provides:** *emulation of MiniPIX expected outputs*

**Data Gatherer**

**Interface:** C++, gatherer.cpp  
**Requirements:** **LLCP** **LLCPM**  
**Provides:** `measure(&acq_time)`  
`get_image()`  
saves incoming packets for later processing



