

Interface Task List

Interface: USART3

Used By: UART Thread, IHU

Specification: 19200 Baud, no flow control

Development:

Functionality	Completed	Tested
TX Bytes	Yes	Yes
RX Bytes	Yes	Yes
Parse Commands	Yes	Yes
Documentation	Yes	

Interface: UART1/4

Used By: Debug output (UART1 on dev. Board, UART4 on final release)

Specification: 19200 Baud, no flow control, Debug output

Development:

Functionality	Completed	Tested
TX Bytes	Yes	Yes
Documentation	No	

Interface: SPI 1

Used By: Main Thread, Camera Thread, SPI Flash

Specification: 8Mbit SPI Flash, 66 MHz maximum bus speed (dev. Board), 1Mbit SPI MRAM (40 MHz maximum) release

Development:

Functionality	Completed	Tested
Write Byte	Yes	Yes
Write Bytes	Yes	Yes
Read Byte	Yes	Yes
Read Bytes	Yes	Yes
Erase Sector/Block	Yes	Yes
Threadsafe	Yes	No
Documentation	Yes	

Interface: I2C 1

Used By: Camera Thread

Specification: OmniVision SCCB (I2C Compatible) 400 kHz

Development:

Functionality	Completed	Tested
Write Register	Inwork	No
Read Register	No	No
Configure Camera	Inwork	No
Confirm Sanity	No	No
Documentation	Inwork	

Interface: FIFO

Used By: Camera Thread, Camera, FIFO

Specification: Dual Port DRAM w/ independent write/read pointers

Development:

Functionality	Completed	Tested
Initialize	No	No
Read Byte	No	No
Read 640x8 Bytes	No	No
Reset	No	No
Documentation	No	

Threading Task List

UART Thread

Development:

Functionality	Completed	Tested
Rx events from peripheral	Yes	Yes
Tx signals to Main Thread	No	No

Main Thread

Development:

Functionality	Completed	Tested
Rx signals from UART Thread	No	No
Wake Camera Thread	No	No
Rx signals from Camera Thread	No	No
Change Thread Priorities	No	No

Camera Thread

Development:

Functionality	Completed	Tested
Sleep	No	No
Wake on command	No	No
Tx signals to Main Thread	No	No
Spawn Compressor Thread	No	No

Compressor Thread

Development:

Functionality	Completed	Tested
Return status on completion	No	No

Compressor Task List

Development:

Functionality	Completed	Tested
PC Test on BMP image	Yes	Yes
PC Test on raw RGB values	Yes	Yes
PC Test with 444,422,420	Yes	Yes
uC Test with YCbCr	Inwork	No
UC Test with Camera	No	No
Documentation	Inwork	