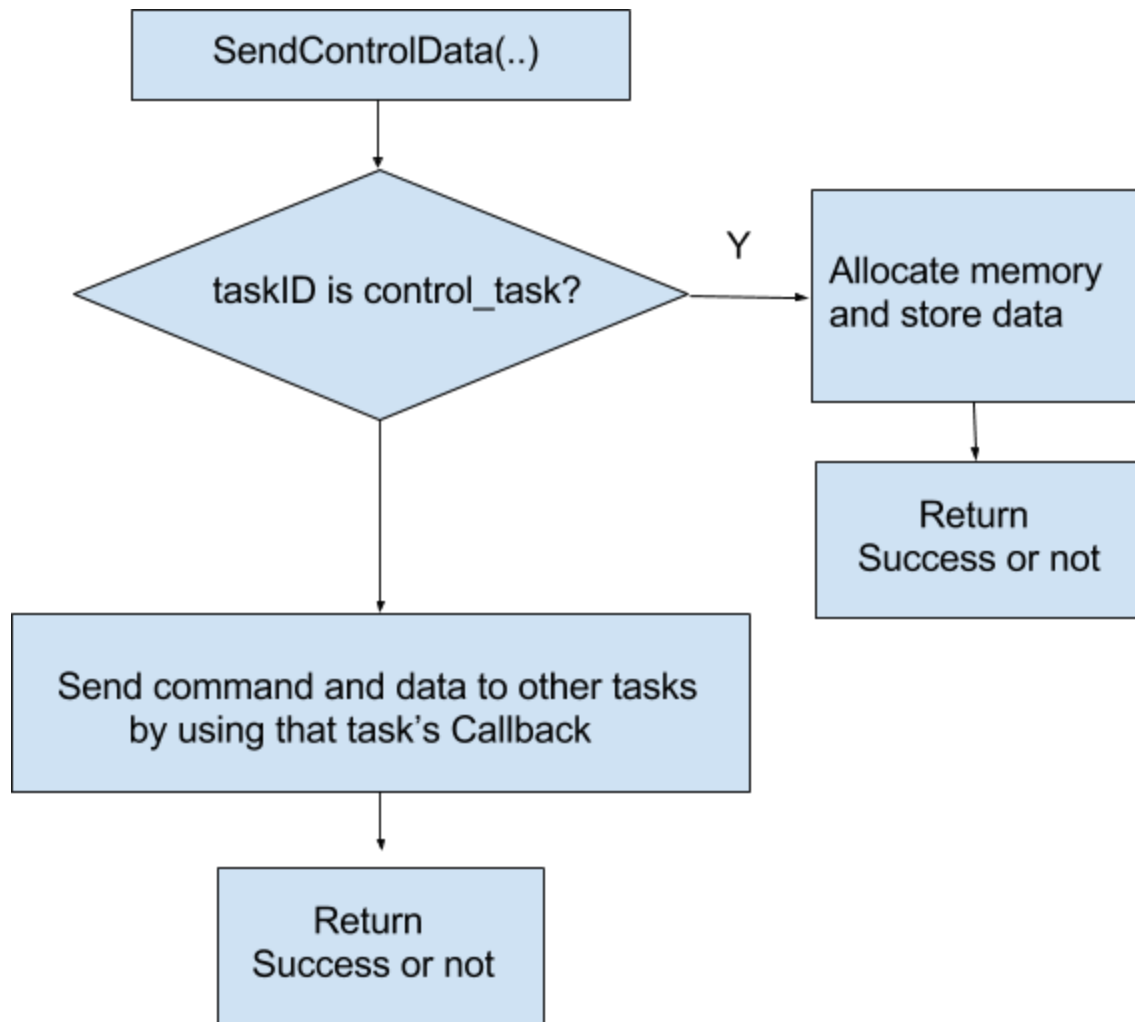
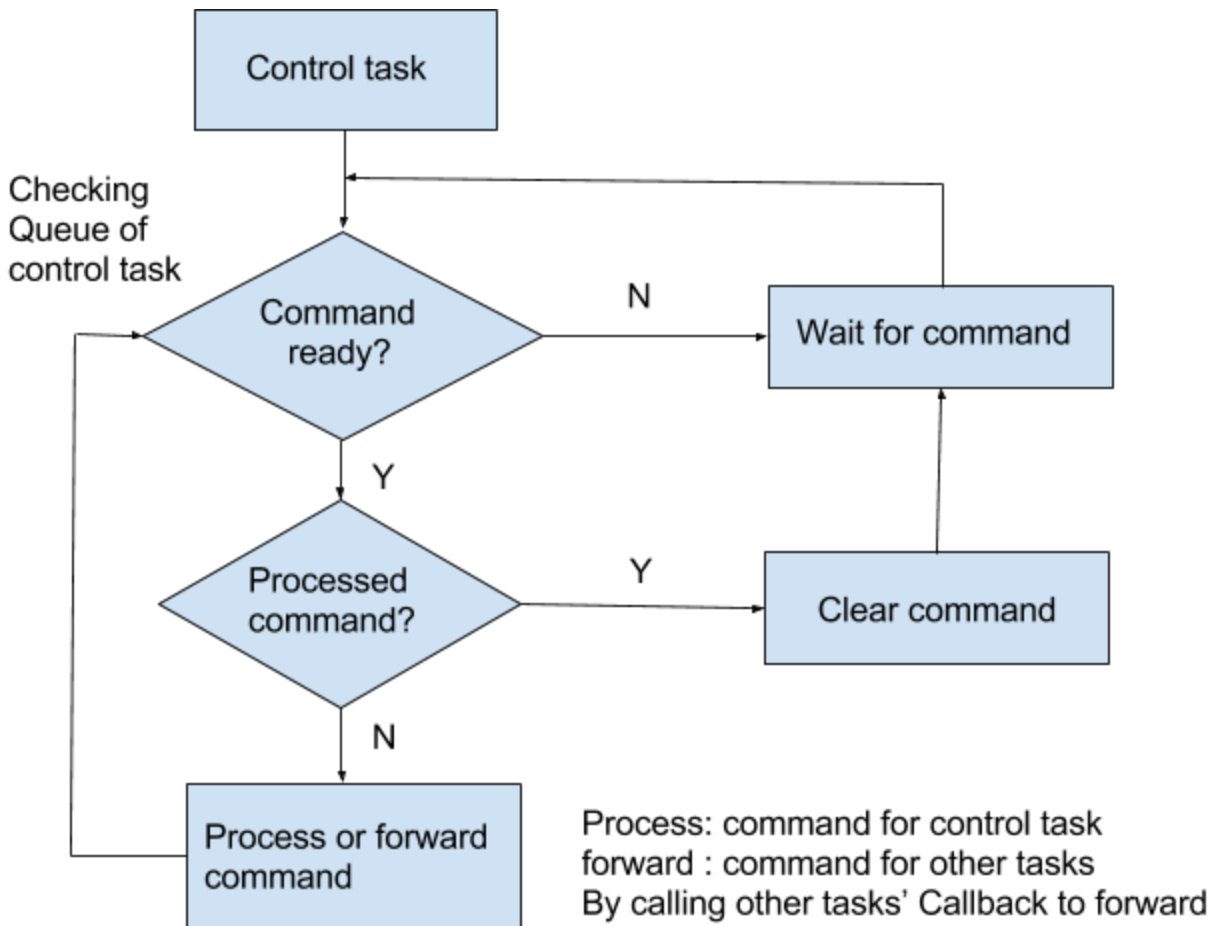


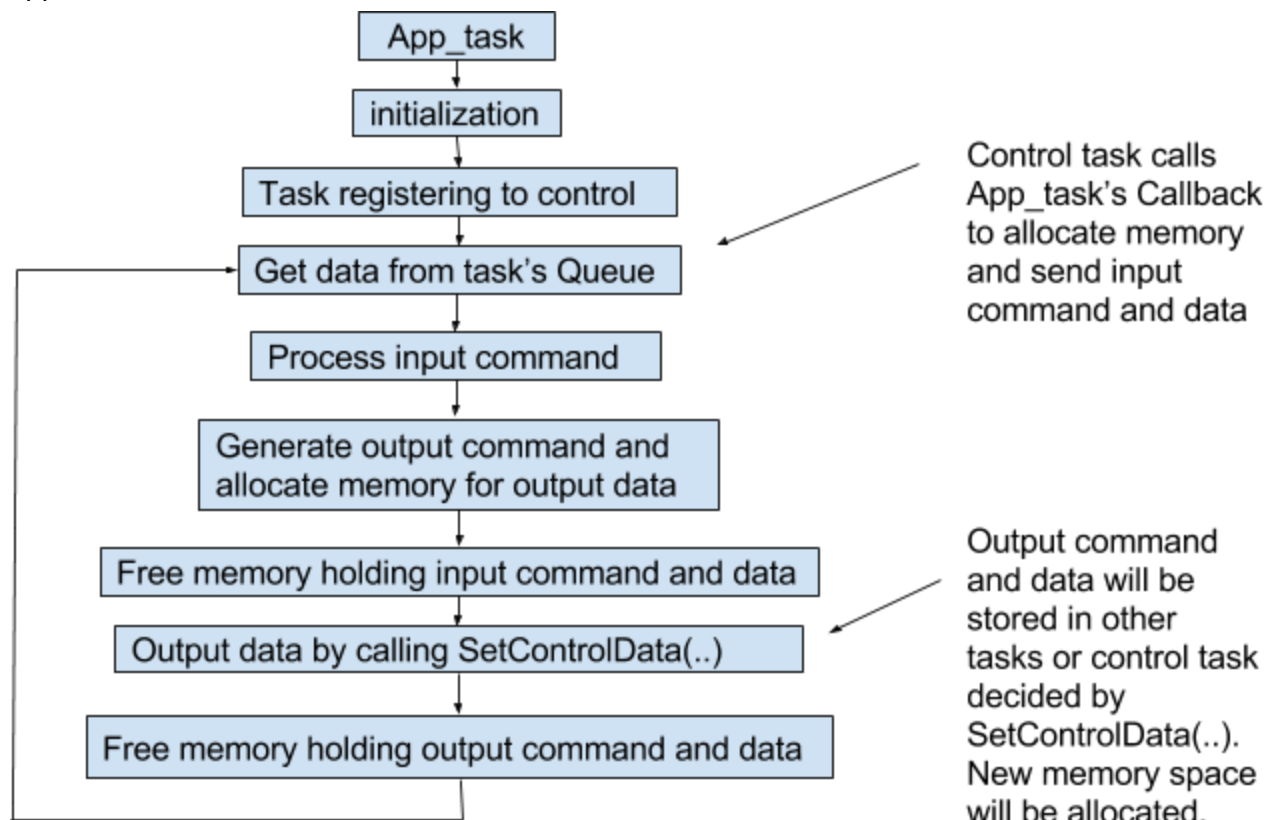
SendControlData(..) flow chart:



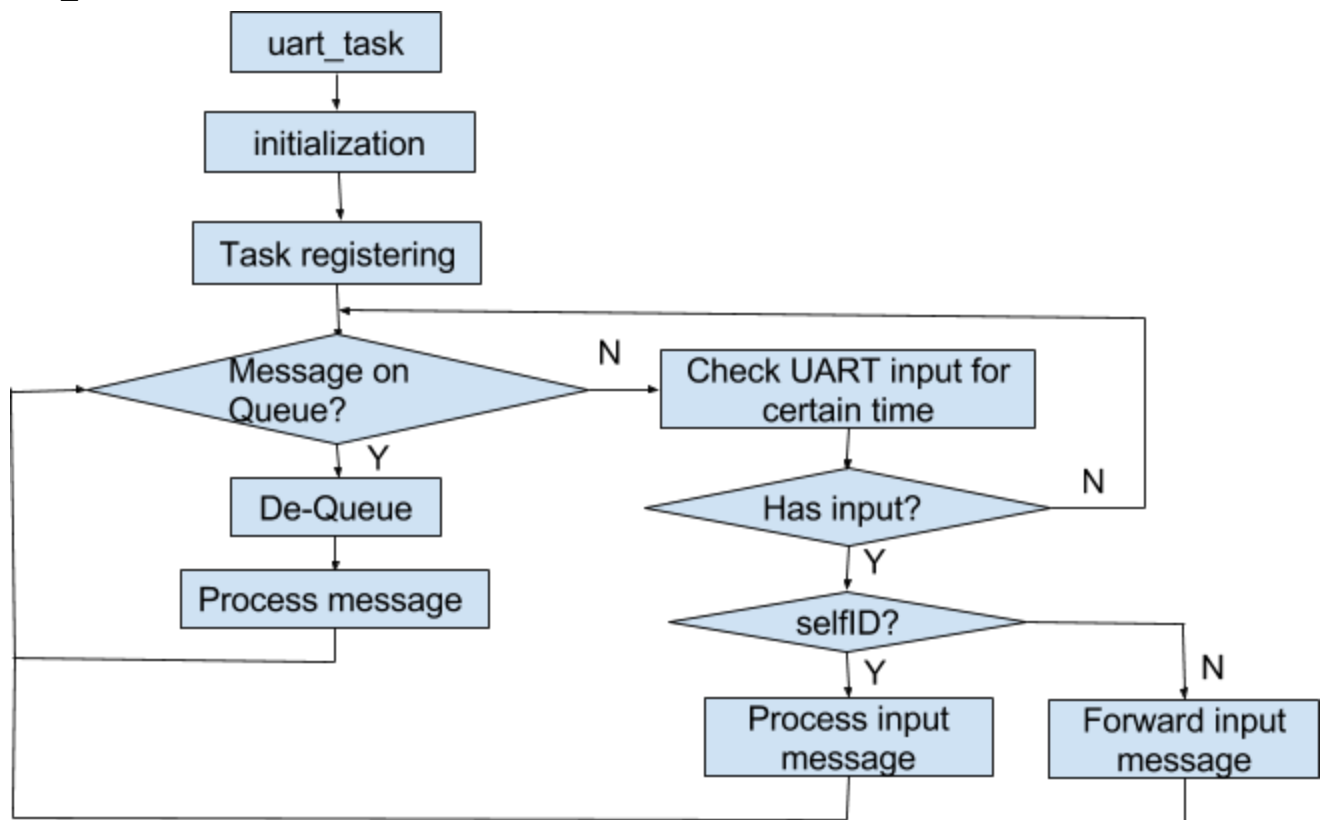
Control task flow chart:



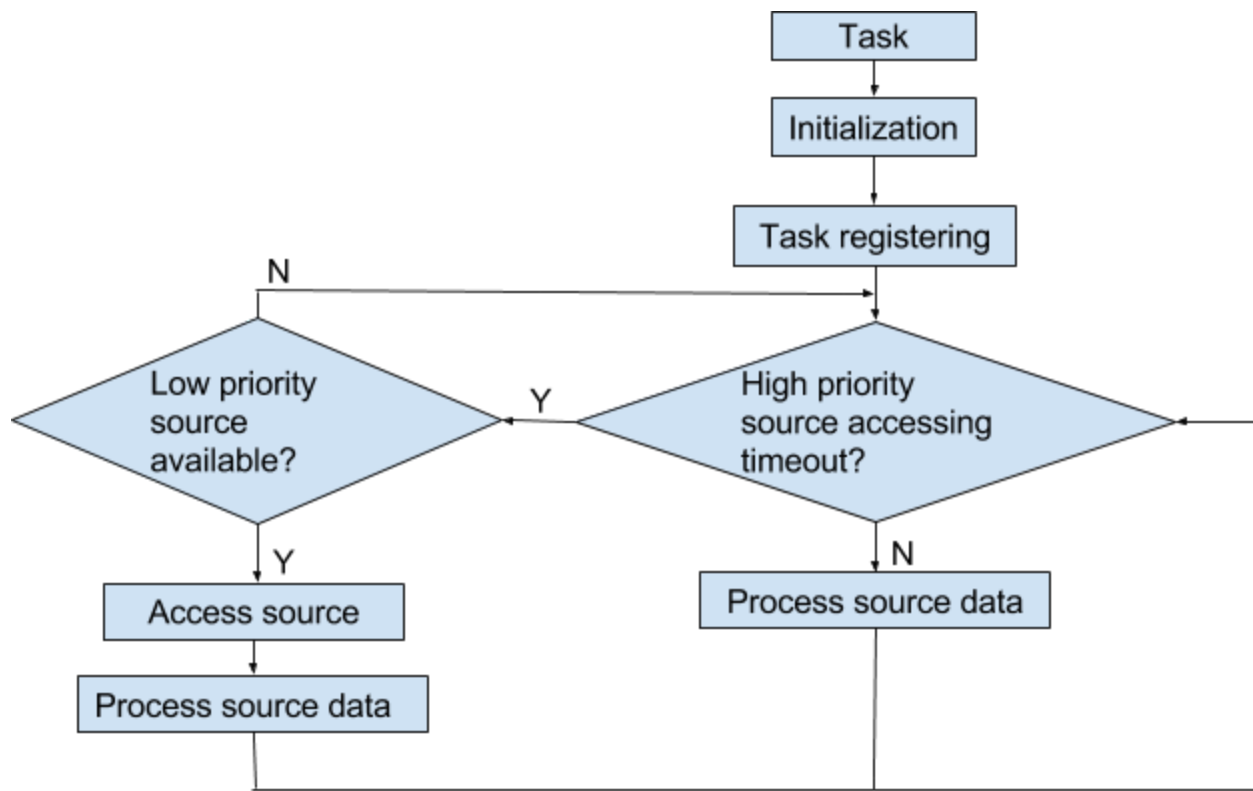
Application task flow chart:



Uart_task flow chart:



Task suspend on two source flow chart:



The Task will deal with two input sources. While reading either of them will cause a task suspending if there is no data available in the source. If the task is suspended to wait one source to become available, the input from the other source within that suspending time will be ignored. In order to give no modifying to the Free-RTOS source codes, priorities were given to those two input sources. The source with high priority will be accessing for a certain time period right after the task finished its initialization. If there is no input in the high priority source, the timeout happens, the program will then go check whether there is an available input in the low priority source. Access the low priority source if an input is available, otherwise go back to access the high priority task for another time period. The time period for accessing high priority source can be determined by experiments on the performance of the task. The task gets input data from either of the input sources and processes them. It goes back to get another input data after processing the last input data.

