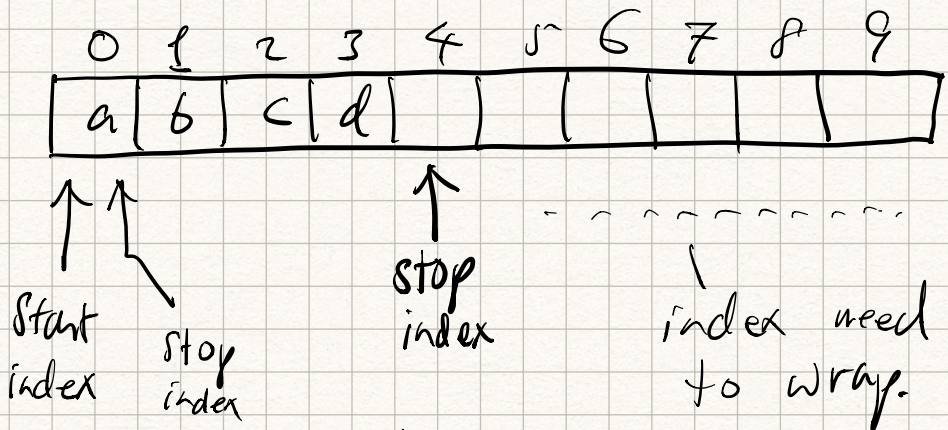
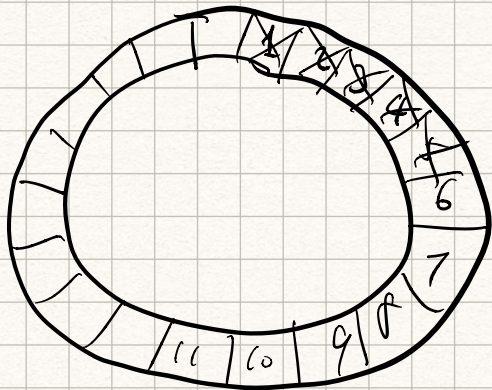


MECH 423 Lecture 11

Packet Communications

- Need temp. storage.

Circular buffers (Queue)



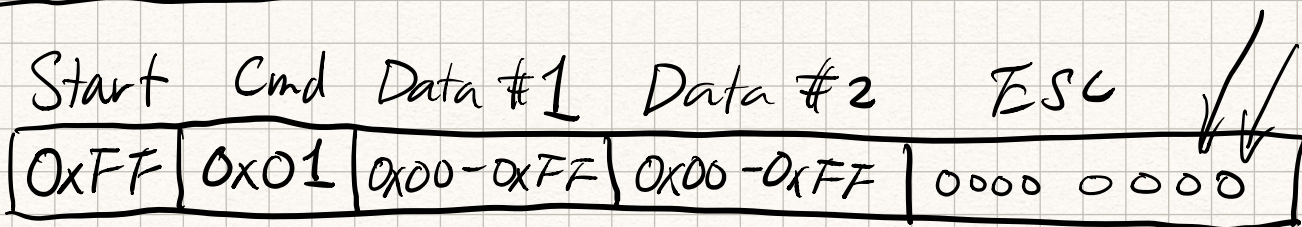
Functions

add To Queue
get From Queue

Variables

queue [Max_Size]
queue Start
queue Stop

Packet Structure



If either data byte = 0xFF then change to 0x00
set ESC byte accordingly

Example: 0xFF 0x01 0x04 0xFF 0x00
 becomes 0xFF 0x01 0x04 0x00 0x01

 0xFF 0x01 0xFF 0x08 0x00
 becomes 0xFF 0x01 0x00 0x08 0x02

To side

Pr side

TX side

Raw packet \rightarrow Processed packet

RX side

1. Store in Queue
2. Check Frc
3. Convert changed bytes to 0xFF
4. Process the message.

Things about Firmware/MCU that we didn't cover

- * Look up table
- Computation \longleftrightarrow Storage
- * Write to flash
- * Direct memory access (DMA)
- * Bootstrap loader
- * Synchronous Comm: I2C, SPI, CAN...
- * Security.