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18-341
Project 3 Report

List of FSMs:

Protocol FSM

Modules for Receiving:

Receiver FSM
PID Reader
Token Reader
Data/CRC16 Reader

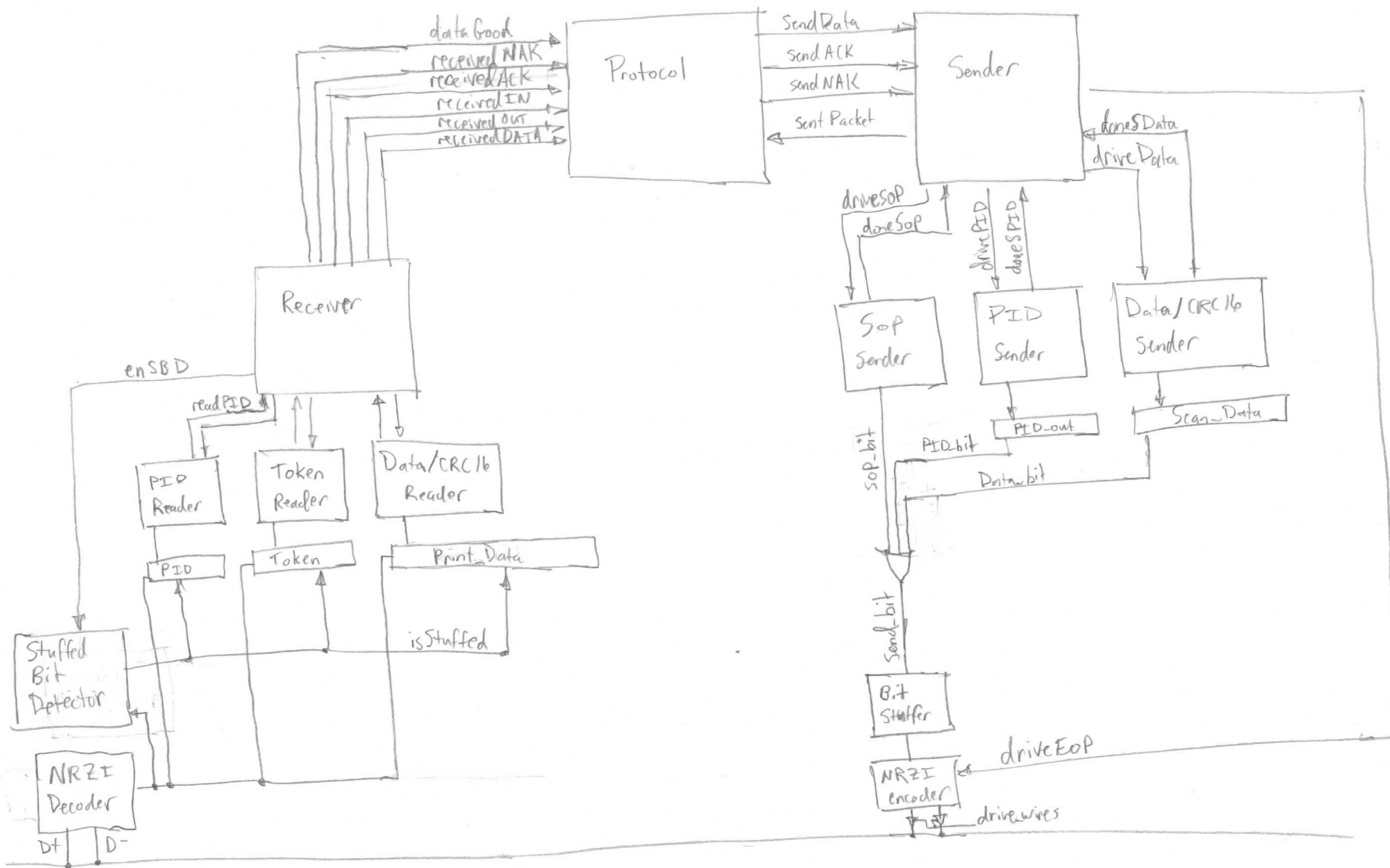
Modules for Sending:

Sender FSM
SOP Sender
PID Sender
Data/CRC16 Sender

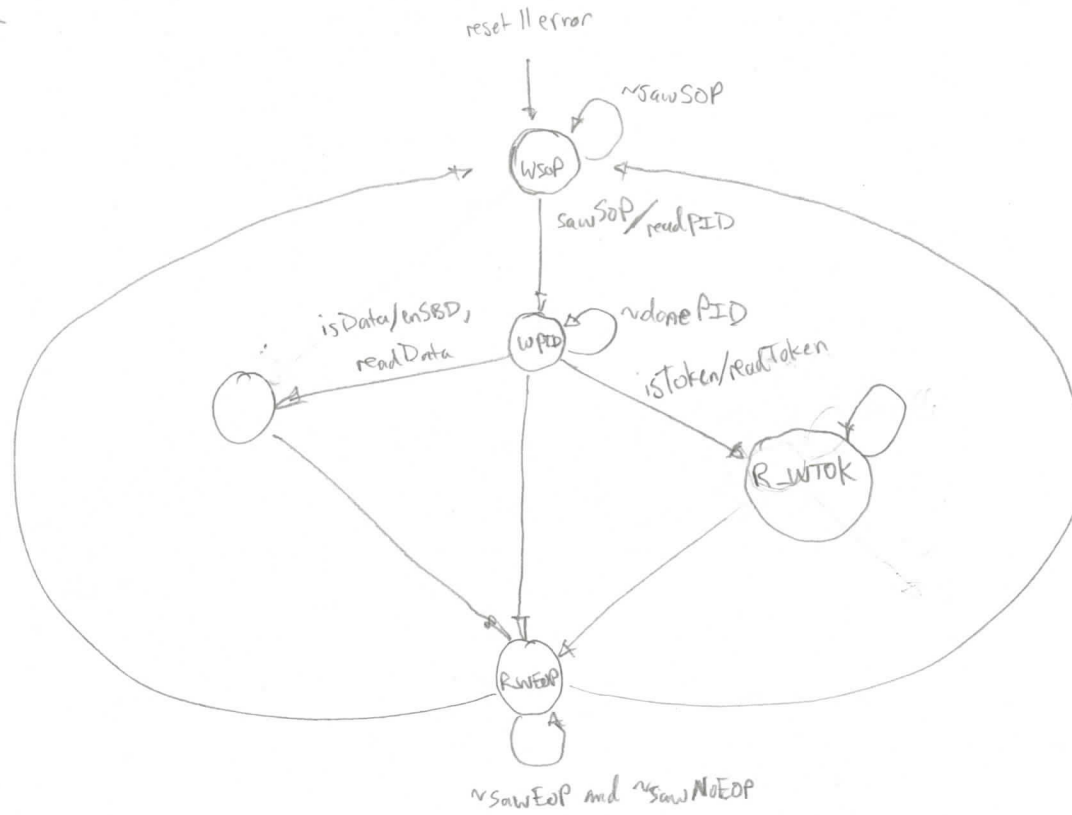
Bit Level FSMs:

Bit Stuffer
NRZI Encoder
NRZI Decoder
Stuffed Bit Detector
SOP Detector
EOP Detector

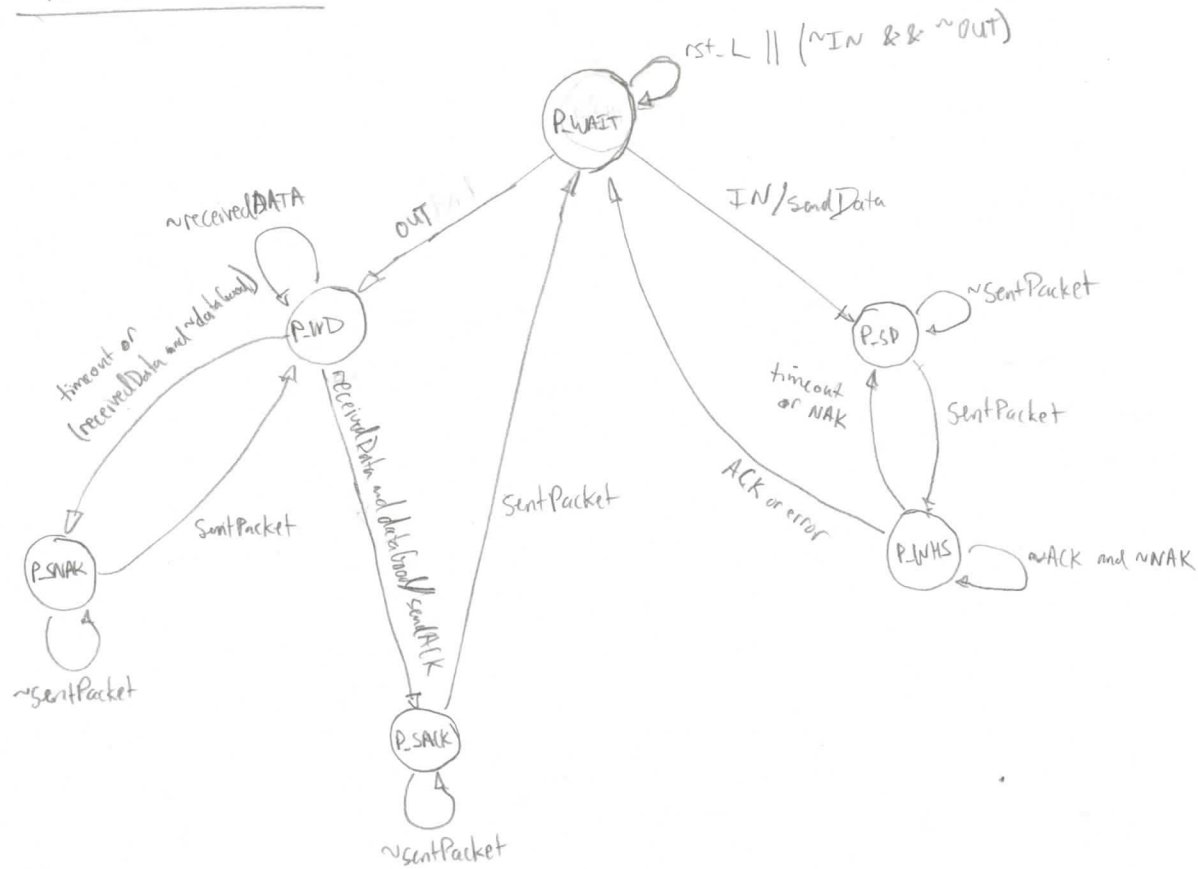
There are basically three levels of FSMs. On the top level, there is the protocol FSM, which listens to the Receiver FSM for packets and issues send commands to the Sender FSM. On the second level there are the sender and receiver FSMs. The receiver FSM simply listens to the wires and tells the Protocol FSM when there are packets and what kind they are. The sender FSM takes send commands from the protocol FSM and then sends the contents of internal memory to the bottom level of FSMs. On the bottom level, there are all of the bit-level FSMs which deal with Js and Ks, bit stuffing and the like. They also detect start of packets and end of packets.



Receiver FSM



Protocol FSM



Sender FSM

