## ABSTRACT

Store and forward method is one method of communication, this method has a clear and definite routing path to make a process of data transmission, so there is no error in data transmission between nodes. This method has a file storage on every node that contains acceptance of files from the previous node, the data will be processed for making sure the file is belong to certain nodes. The protocol that used on this communication method is protocol TCP (Transmission Control Protocol) because this protocol is supporting the occurrence of realiable communication, oneto-one, half duplex, and there's also handshaking method in order for occurrence of the communication. This final project is prototype development data communication formany node using store and forward method. Master and Node already installed communication module APC220, In this communication, first a master will transmitting data for turning on or off the light to a certain node according to which push button that pressed, every push button has their own identity. The data transmission process performed by sequentially from master to first node, then first node forwarded to the second node, forward process will happen until the target node is successed to accepting data.

Keywords: Store and Forward Method, TCP/IP Protocol, Arduino, APC220