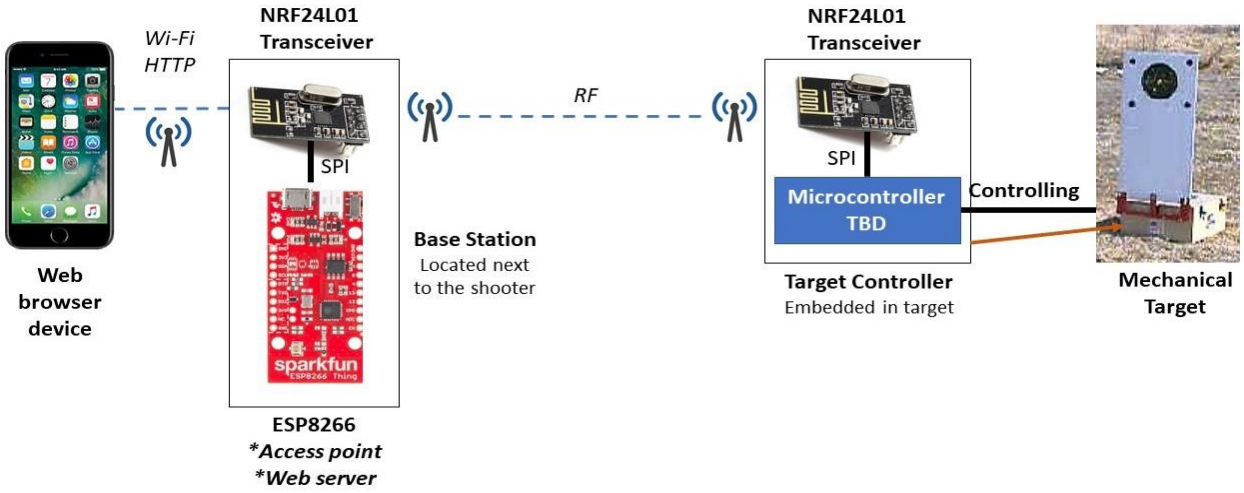
Scott Gale, u1203422
CS6780 – Embedded Systems Mini-Project Proposal

Group Members: Scott Gale. I desire to work alone on this project because I want to create a system I can use and keep. I also have the capacity to manufacture all the required hardware (welder, cutter, power tools, mill, etc) needed to construct the target framework.

Project Description: Automated shooting targets. I want to create multiple shooting targets that can be controlled from a Wi-Fi device (phone, tablet, computer). These targets will be exposed to a shooter and then concealed through either a popup or turning mechanism. My goal is to implement three modes of operation. Each mode will continue indefinitely until terminated or given another command.

- Mode 1: Manual – targets are exposed/concealed on demand through the device.
- Mode2: Automatic – user sets the value for the number of seconds the target will be exposed / concealed (two separate values).
- Mode3: Random – Given a range of expose/conceal times (min/max) randomly select a value during each expose/conceal sequence for each target independently.

Block diagram



Milestone 1: User interface complete (Web based HTML) successfully issuing commands for all three modes of operation. (20MAR2019)

Milestone 2: End to end communication pipeline established with commands being received by hardware that is collocated with the target. (27MAR19)

Milestone 3: Physical hardware (target, actuator or motor) built and operational. (10APR2019)

Milestone 4 (Demo): Last lab of semester. (17/24ARP2019)