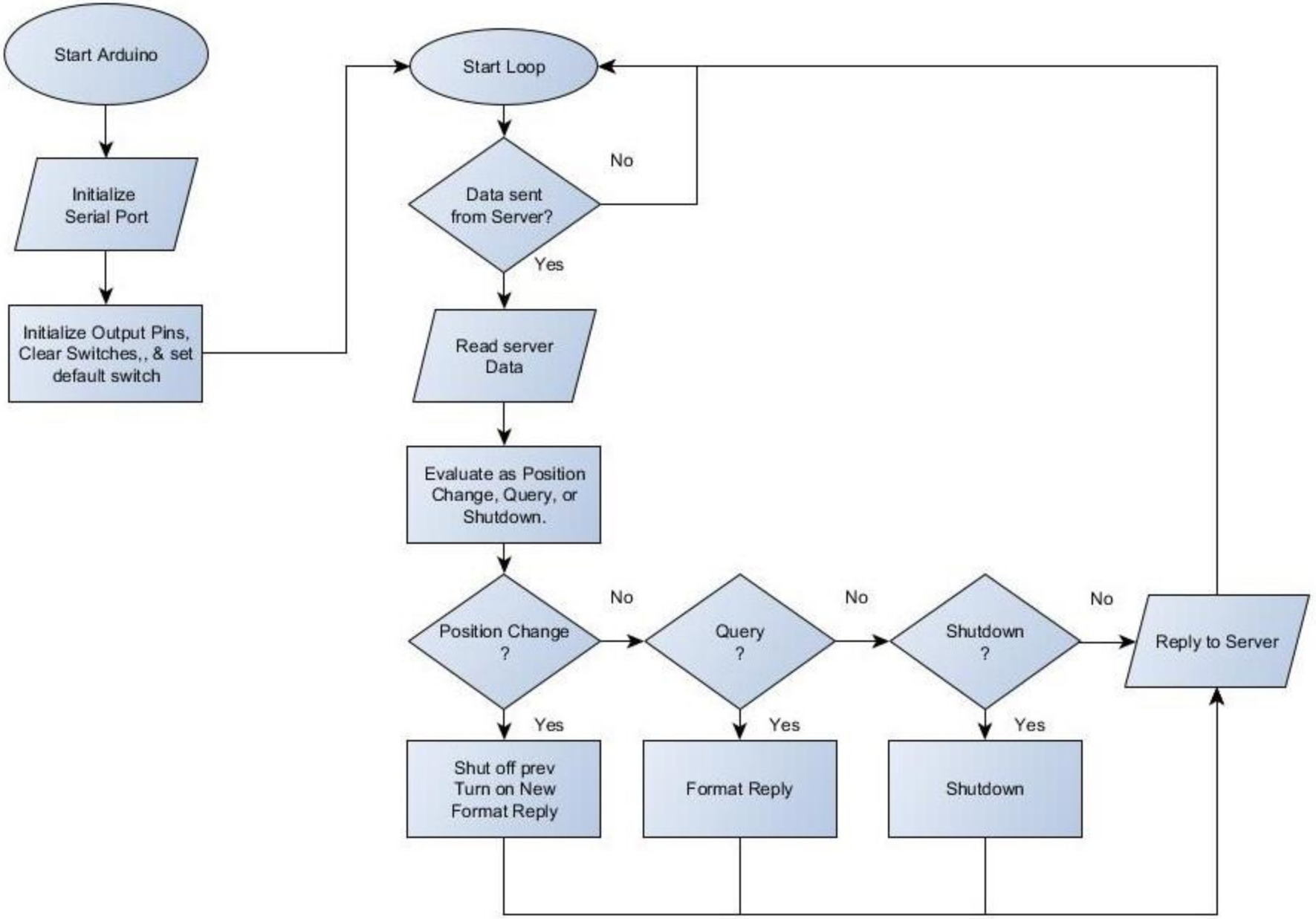
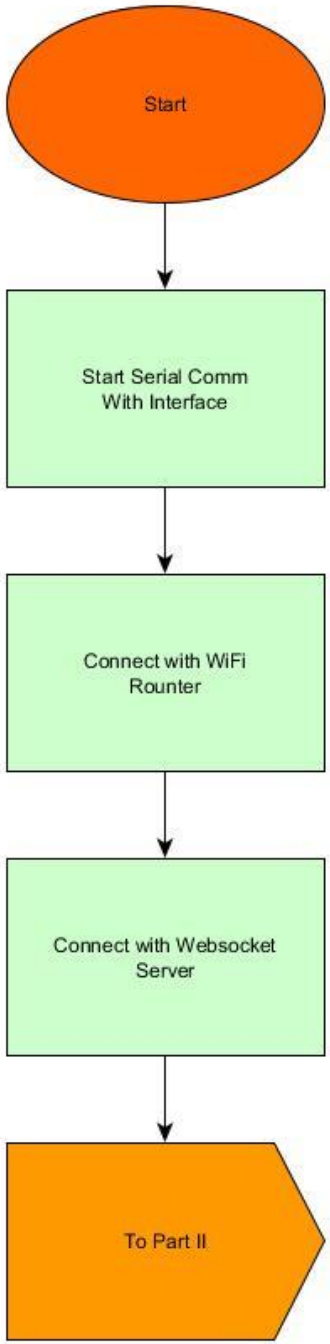
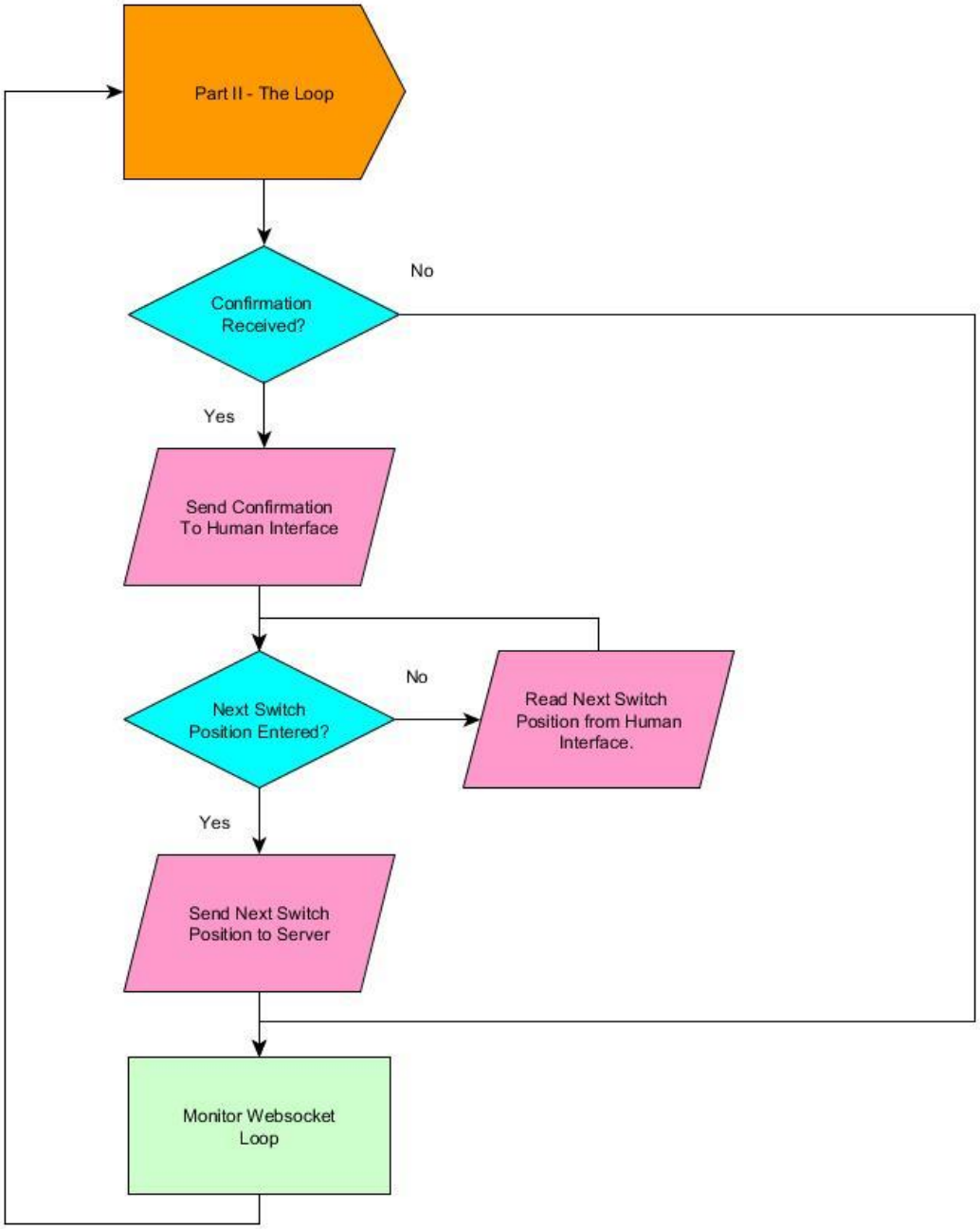
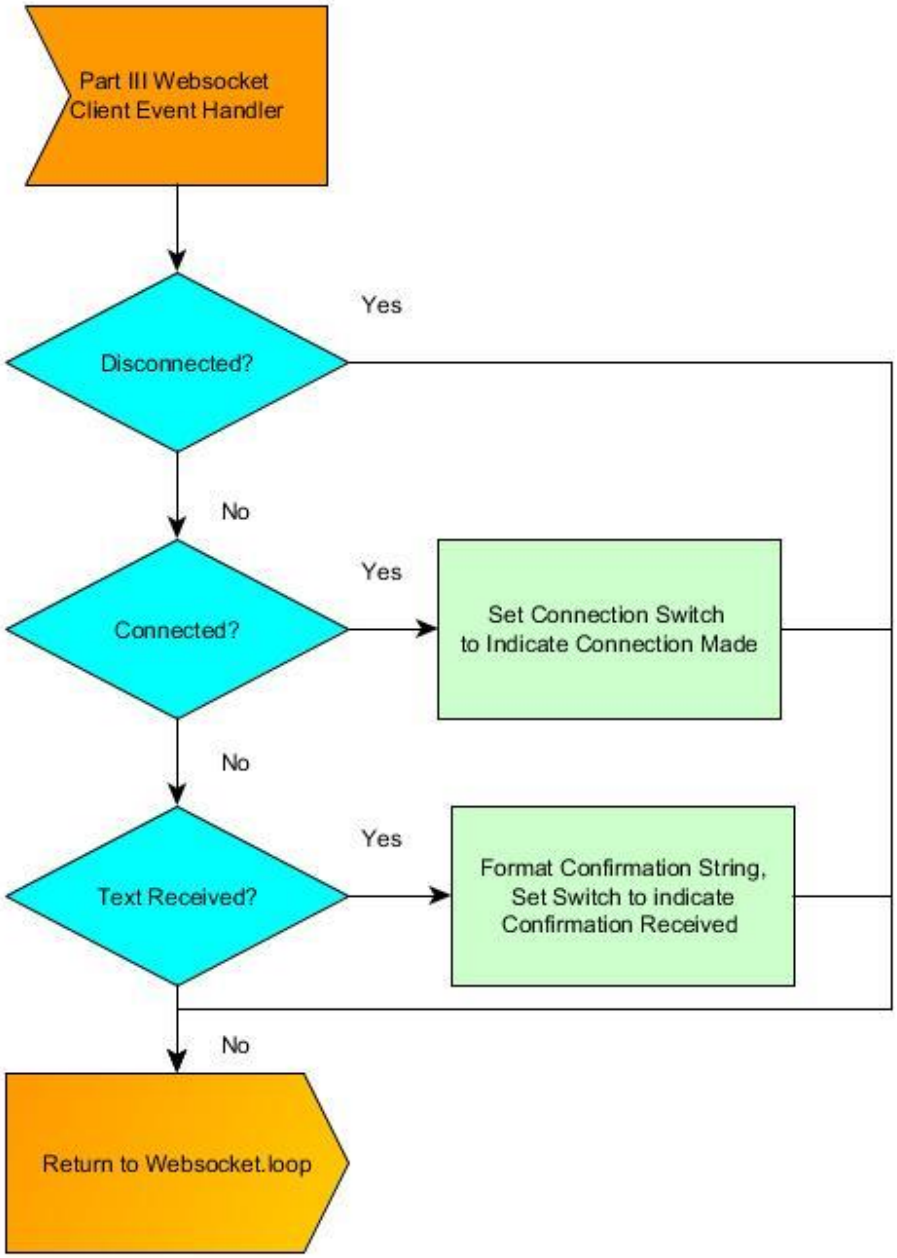

Start Arduino
Initialize Serial Port
Initialize Output Pins, Clear Switches,, & set default switch
Start Loop
Data sent from Server?
No
Yes
Read server Data
Evaluate as Position Change, Query, or Shutdown.
Position Change ?
No
Query ?
No
Shutdown ?
No
Reply to Server
Yes
Shut off prev Turn on New Format Reply
Yes
Format Reply
Yes
Shutdown

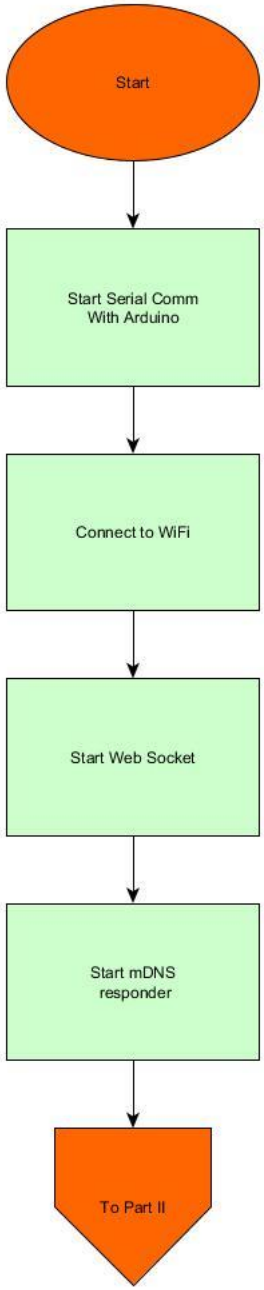
Client

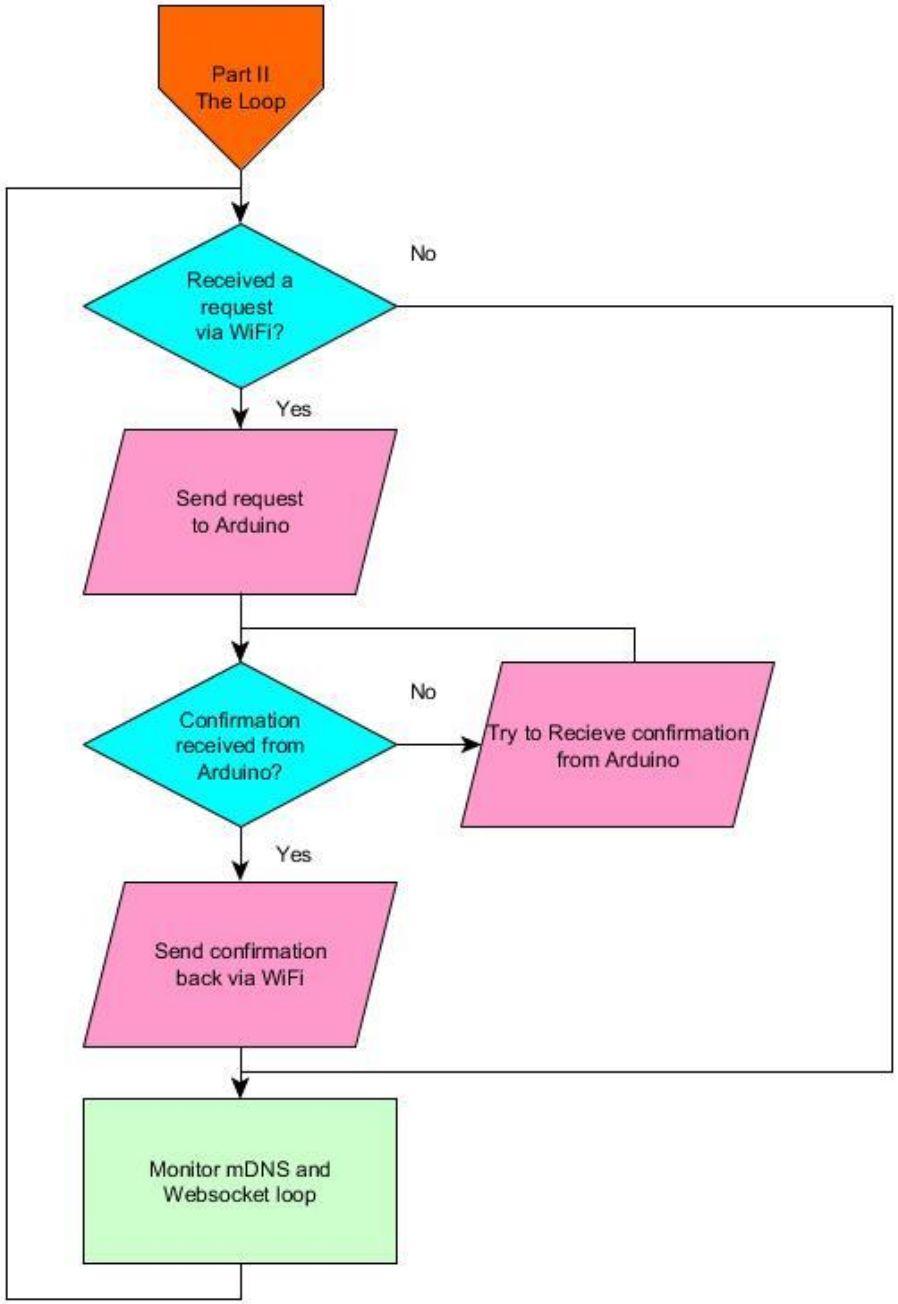

Start
Start Serial Comm
With Interface
Connect with WiFi
Rounter
Connect with Websocket
Server
To Part II

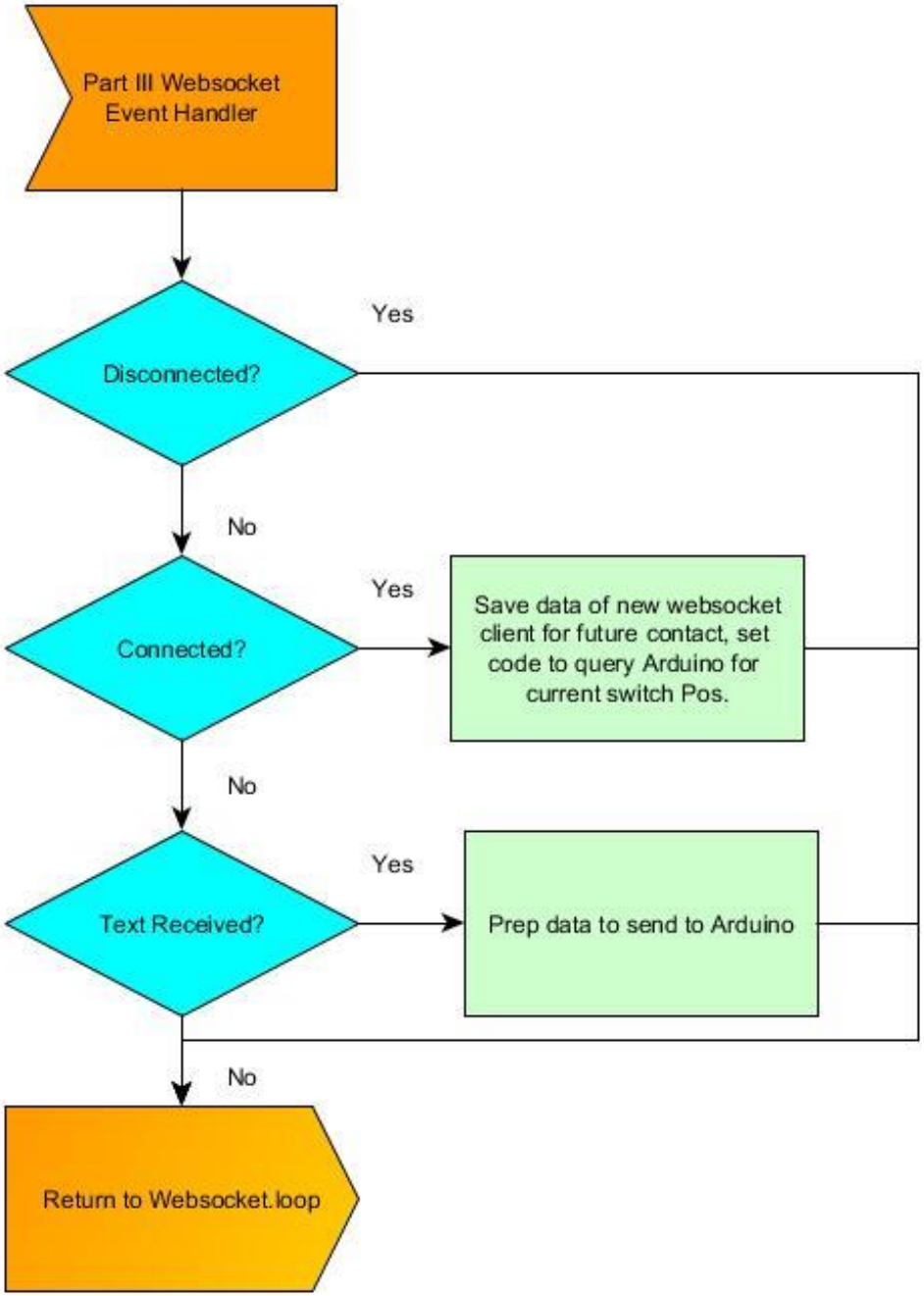

Part II - The Loop
Confirmation Received?
No
Yes
Send Confirmation To Human Interface
Next Switch Position Entered?
No
Read Next Switch Position from Human Interface.
Yes
Send Next Switch Position to Server
Monitor Websocket Loop


Part III Websocket
Client Event Handler
Disconnected?
Yes
No
Connected?
Yes
Set Connection Switch
to Indicate Connection Made
No
Text Received?
Yes
Format Confirmation String,
Set Switch to indicate
Confirmation Received
No
Return to Websocket.loop

Server


Start
Start Serial Comm
With Arduino
Connect to WiFi
Start Web Socket
Start mDNS
responder
To Part II


Part II
The Loop
Received a request via WiFi?
No
Yes
Send request to Arduino
Confirmation received from Arduino?
No
Try to Recieve confirmation from Arduino
Yes
Send confirmation back via WiFi
Monitor mDNS and Websocket loop


Part III Websocket Event Handler
Disconnected?
Yes
No
Connected?
Yes
Save data of new websocket client for future contact, set code to query Arduino for current switch Pos.
No
Text Received?
Yes
Prep data to send to Arduino
No
Return to Websocket.loop