

ME218C Final Project, 2016
Team 6
Lobbyist SM Pseudocode

Lobbyist State Machine

Module Variables: myPriority, LobbyistState, LobbyistColor, CurFlagStep, ADCInput

InitLobbyistSM

Takes nothing, returns nothing

```
Enable clock to port B
Set lift fan pin as digital output
Write lift fan pin lo
Set up propulsion
Set up ADC conversion
Set priority variable
End InitLobbyistSM
```

PostLobbyistSM

Takes parameter ES_Event ThisEvent, returns true/false Returns ES_PostToService with this service's priority and event

End PostLobbyistSM

RunLobbyistSM

Takes parameter ES_Event ThisEvent, returns ES_Event ReturnEvent

```
LobbyistSM switch
  Waiting4pair state
    If new packet received
      get the pairing data
      if lobbyist ID matches and the pac wasn't previously paired
        set last xbee address
        send status packet
        Turn on lift fan
        Start Transmit timer
        Start Pairing timer
        set color
        Update DMC
    Waiting for encryption state
      If you receive encryption packet and it is from the xbee you're
      talking to
        Set enc key
        Start Transmit timer
        Update DMC
        Return status packet
        Go to waiting4control state
      if transit timer times out
        turn off lift fan
        go back to waiting to pair state
    Waiting for control state
      if new it is a different packet from the last one
        Start Transmit timer
        decrypt the CTRL packet
        Check brake pin
```

```

        if pairing bit is clear here
        else
            TURN OFF FAN HERE
            turn off prop
            INDICATE DMC AVAILABLE FOR PAIRING
            send unpaired status
            update DMC
        if decryption error
            send status with decryption error byte set
            TURN OFF FAN HERE
            INDICATE DMC AVAILABLE FOR PAIRING
        resend Last packet
    if transit timer timed out
        send unpaired status packet
        TURN OFF FAN HERE
        INDICATE DMC AVAILABLE FOR PAIRING
    if pairing timer timed out
        TURN OFF FAN HERE
        go back to waiting to pair state
        INDICATE DMC AVAILABLE FOR PAIRING
    if flag timer timed out
        reset timer
        update DMCEnd RunPACSM

```

End RunLobbyistSM

UpdateFlagStep

Takes bool isPaired, returns nothing

```

Clear upper 2 bits
copy paired status to bit 7
increment flag step
send byte over UART5

```

End updateFlagStep

getLobbyistID

Takes nothing, returns nothing

```

Read pot
Set value based on bin

```

End getLobbyistID