

ME218C Final Project, 2016
Team 6
Controller SM Pseudocode

Controller State Machine

Module Variables: myPriority, ControllerState, lastPairButtonStatus,
accelTimerExp, currentPotInputState

InitController

Takes nothing, returns nothing

Init Analog Pot
Init Digital Pins
Turn LEDS off

End InitController

PostController

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

End PostController

RunController

Takes parameter ES_Event ThisEvent, returns ES_Event ReturnEvent

Controller State machine case statement

 Waiting 2 pair state
 Controller timeout event
 Sample Pair button
 Reset controller timer
 Pair Success event
 Change states
 Turn on Pair LEDS
 Controller Paired State
 Controller timeout event
 Sample buttons
 Reset Controller timer
 Unpair Event
 Change states
 Turn off LEDS
 Accelerometer Timeout
 Post event to PAC SM

End RunController

Init Controller Inputs

Takes nothing, returns nothing

Enable clock to port
Wait until ports are ready
Set up pins as digital
Configure pins as inputs - default state
Configure pin as output

End InitControllerInputs

CheckInputs

Takes nothing, returns nothing

```
Unpair on next command if pair button is pressed again
    Post unpair event on first button press
Brake if button is pressed
    Post brake event on first button press
Check forward button
    Post forward event on first button press
    S_Timer_InitTimer(ACCEL_TIMER, ACCEL_TIMEOUT);
Check back button
    Post back event on first button press
    S_Timer_InitTimer(ACCEL_TIMER, ACCEL_TIMEOUT);
Check left button
    Post left event on first button press
    S_Timer_InitTimer(ACCEL_TIMER, ACCEL_TIMEOUT);
    Post left event on first button release
Check right button
    Post right event on first button press
    S_Timer_InitTimer(ACCEL_TIMER, ACCEL_TIMEOUT);
    Post right event on first button release
Check Accelerometer pin
    On hi, reset timer
    Post to turn fan back on

End CheckInputs
```

CheckPair

Takes nothing, returns nothing

```
Post Pair event to PAC SM on press
Set team color

End CheckPair
```

GetLobbyistNumber

Takes nothing, returns nothing

```
Read ADC from pot
Determine which bin it is in

End GetLobbyistNumber
```