

InitPlayerTransmitSM()

set CurrentState variable to Sleep
set CurrentSubState variable to Send_Delim
Call InitTxSCI()
Call Init TxPorts()
Call Init TxTimers()

End InitPlayerTransmitSM**InitTxSCI()**

Set baudrate to 155
Enable Full duplex mode
Enable 8 bit transmission
Disable parity bit
Enable Transmit and Receive over SCI

End InitTxSCI**InitTxPorts()**

Explicitly configure SCI pins to input and output
Set pins 1,3,4, and 5 on Port P as outputs
set pins 1,3,4 and 5 as high

End InitTxPorts()**InitTxTimers()**

Turn Timer System On
Set Prescale clock to $/128 = 187.5\text{kHz}$
set up comp 5 to output compare, leave the rest alone
disable pin connectedness for OC5
schedule the first rise
clear to OC5 flag
enable OC5 interrupt
Enable Interrupts globally

End InitTxTimers()**interrupt _Vec_tim0ch4 MessageTimer**

clear flag
set transmitFlag to 1
Post Event (TRANSMIT) to PlayerTransmitSM
toggle pin 5 on port P
schedule next rise

End interrupt _Vec_tim0ch4 MessageTimer

Build_Response is a function called in PlayerBrainSM

Build_Response (char byte, int i)

fill i`th element of array called responseArray with byte

End Build_Response

Build_Address is a function called in PlayerBrianSM

Build_Address (char addrbyte, int i)

fill i`th element of array called addressArray with byte

End Build_Address

RunPlayerTransmitSM()

if transmitFlag is 1

if CurrentState is Sleep

toggle pin 1 on port P (blinks LED)

Set NextState to Sleep

If Event is COACH_CALL

NextState is Response

turn off LED on port 1

End If

If Event is CAN_TRANSMIT

NextState is SendStatus

End If

End if

if Event is Transmit

If CurrentState is Response

turn on LED on pin 3 port P

send Delimiter

send Length Byte MSB

send Length Byte LSB

send APiID

send Frame ID

send Destination Address MSB

send Destination Address LSB

send Options byte

send RF Data

send checksum

NextState is Response

if PlayerBrain is in Paired State

NextState Send Status

End if

End If

End if

```
if Event is TAG_OUT
  NextState is Sleep
  turn off LED on pin 4 port P
End if
```

```
if Event is ES_TIMEOUT
  NextState is Sleep
  turn off LED on pin 4 port P
End if
```

```
if Event is Transmit
  If CurrentState is SendStatus
    toggle pin 4 on port P (blinks LED)
    send Delimiter
    send Length Byte MSB
    send Length Byte LSB
    send APiID
    send Frame ID
    send Destination Address MSB
    send Destination Address LSB
    send Options byte
    send RF Data
    send checksum
    NextState is SendStatus
  End If
End if
```

```
End if
```

```
CurrentState = NextState;
CurrentSubState = NextSubState;
```

```
End RunPlayerTransmitSM()
```