InitPlayerLiFKIM()
    Call InitLiFSPI();
    Call InitLiFTimer();

    Explicitly configure ports for SPI communication

    intialize variables: counter, heartBeating, dummyFlag, initFlag, tCounter, j, n, and tagFlag
End InitPlayerLiFKIM

InitLiFSPI()
    Enable SPI and set E128 to Master
    Set baudrate
    set clock to idle high and sample even edges
    disable slave select output
    send MSB first
    Enable SPI Interrupt
    Enable MODFEN to give SPI control of SS line
End InitLiFSPI

InitLiFTimer()
    Turn Timer System On
    Set Prescale clock to /128 = 187.5kHz
    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 InitLiFTimer

interrupt _Vec_tim1ch5 LiFKIMTimer()
    clear the OC5 flag
    if (tagFlag is 1)
        Post Event to PlayerLiFKIM called TAG_OUT
    Else
        Post Event to Player LiFKIM called TRIGGER2
    End If

    Schedule the next rise
End interrupt _Vec_tim1ch5 LiFKIMTimer

interrupt _Vec_spi ReadLiFKIM()
    if SPIF flag is set
        read SPIDR and store in dummyData
        if (heartBeating is 1)
            if counter is odd number

read SPIDR and store in dummyData

else

read SPIDR and store in liFData

Call Build_LiFKIM and pass liFData and integer 0 as arguments thereto

End if

End If

End if

End Interrupt _Vec_spi ReadLiFKIM

StartFan()

send command to start LiFKIM

send dummy command

End StartFan

ActivateFan()

send command to Activate LiFKIM

send dummy command

End ActivateFan

KillFan()

send command to set LiFKIM to 0 lift

send dummy command

End KillFan

Heartbeat()

set variable heartBeating to 1

send status query to LiFKIM

send dummy command

End Hearbeat

void Send_TagOut

send team color to LiFKIM

send dummy command

send location of tag_out to LiFKIM

send dummy commnad

End Send_TagOut

Send_TagDetected

send team color to LiFKIM

send dummy command

send location of tag detected to LiFKIM

      send dummy commnad
End Send_TagDetected

Build_TagDetected (char byte, int i)
    fill i'th element of array called tagDetect with byte
End Build_TagDetected

Build_TagOut (char byte, int i)
    fill i'th element of array called tagOut with byte
End Build_TagOut

RunPlayerLiFKIM()
    If this Event.EventType is ES_Timeout
        Call KillFan ()
    end if

    If this Event.EventType is TIME_OUT
        Call KillFan()
    End If

    If this Event.EventType is START_ENGINE
        increment counter;
        Call StartFan()
        Call ActivateFan();
        set variable tCounter to 0;
    End if

    If ThisEvent.EventType is GET_STATUS
        increment counter
        Call Heartbeat()
    End If

    If ThisEvent.EventType is TAG_CALL
        set variable tagFlag to 1
    End If

    If ThisEvent.EventType is TAG_OUT
        increment counter
        if tCounter is less than 4
          Call Send_TagDetect()
          set tagFlag variable to 0
          increment tCounter
        Else
          if tCounter is less than 8
            Call Send_TagOut()
            set tagFlag to 0
            incrememt tCounter
          end if

```
        End if
    End If
```

End RunPlayerLiFKIM