Hi i have e following code for communication with an I2C Device.

```
#define       DEVICE_ADDR     0x14
#define       DEVICE_READ     0x4c
```

```
  Therm_Timeout = 10 * Therm_LONG_TIMEOUT;
  while(I2C_GetFlagStatus(DEVICE_I2C, I2C_ISR_BUSY) != RESET)
  {
    if((Therm_Timeout--) == 0)
        return Therm_TIMEOUT_UserCallback();
  }

    for (x = 0 ; x < 0xFFFFF ; x++)
  /* Configure slave address, nbytes, reload, end mode and start or stop generation */
  I2C_TransferHandling(DEVICE_I2C, DEVICE_ADDR, 1, I2C_SoftEnd_Mode, I2C_Generate_Start_Write);
    //for (y = 0 ; y < 0xFFFFF ; y++);

  /* Wait until TXIS flag is set */
  Therm_Timeout = Therm_LONG_TIMEOUT;
  while(I2C_GetFlagStatus(DEVICE_I2C, I2C_ISR_TXIS) == RESET)
  {
    if((Therm_Timeout--) == 0)
            return Therm_TIMEOUT_UserCallback();
  }

  /* Send Register address */
  I2C_SendData(DEVICE_I2C, (uint8_t)DEVICE_READ);

    // NEED TO GENERATE RESTART CONDITION HERE
  I2C_GenerateSTART(DEVICE_I2C, ENABLE);
  while(I2C_GetFlagStatus(I2C1,I2C_FLAG_BUSY));

  /* Wait until TC flag is set */
  Therm_Timeout = 10 * Therm_LONG_TIMEOUT;
  while(I2C_GetFlagStatus(DEVICE_I2C, I2C_ISR_TC) == RESET)
  {
    if((Therm_Timeout--) == 0)
        return Therm_TIMEOUT_UserCallback();  // Program TIMEOUT here
  }

  /* Configure slave address, nbytes, reload, end mode and start or stop generation */
  I2C_TransferHandling(DEVICE_I2C, DEVICE_ADDR, 35, I2C_AutoEnd_Mode, I2C_Generate_Start_Read);

  /* Wait until all data are received */
  while (DataNum != 35){

        /* Wait until RXNE flag is set */
    Therm_Timeout = Therm_LONG_TIMEOUT;
    while(I2C_GetFlagStatus(DEVICE_I2C, I2C_ISR_RXNE) == RESET){

        if((Therm_Timeout--) == 0)
            return Therm_TIMEOUT_UserCallback();
        }

      /* Read data from RXDR */
      DEVICE_BufferRX[DataNum]= I2C_ReceiveData(DEVICE_I2C);

      /* Update number of received data */
      DataNum++;
    }

  /* Wait until STOPF flag is set */
  Therm_Timeout = Therm_LONG_TIMEOUT;
  while(I2C_GetFlagStatus(DEVICE_I2C, I2C_ISR_STOPF) == RESET)
  {
    if((Therm_Timeout--) == 0)
            return Therm_TIMEOUT_UserCallback();
  }
```
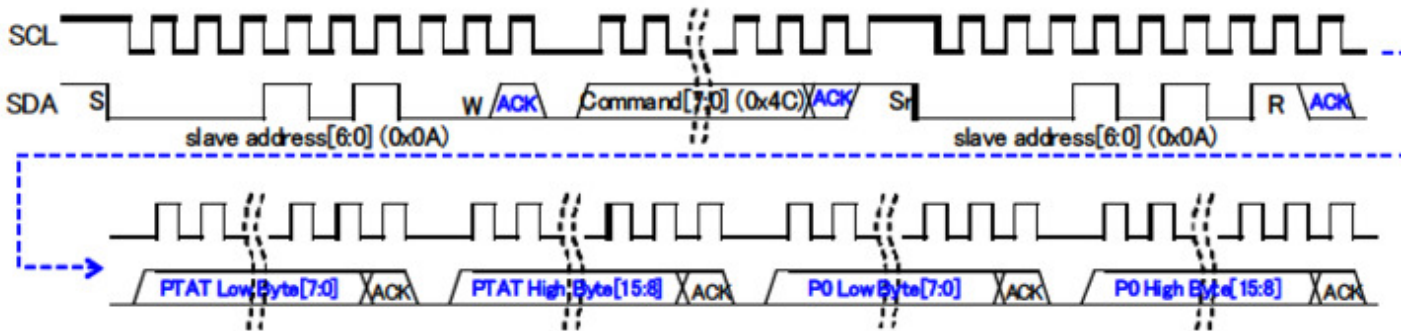
```
/* Clear STOPF flag */
I2C_ClearFlag(DEVICE_I2C, I2C_ICR_STOPCF);
STM_EVAL_LEDOn(LED10);
```


The protocol is shown in the image above. How can i generate a re-start condition. i have tried

```
I2C_GenerateSTART(DEVICE_I2C, ENABLE);
while(I2C_GetFlagStatus(I2C1,I2C_FLAG_BUSY));
```

but it still when into the timeout. Thanks.