

ZywlSDK 开发指南

工程配置

- 在 Background Modes 选项内勾选 Uses Bluetooth LE accessories
- 在 info.plist 添加 Privacy - Bluetooth Always Usage Description 字段

Demo 的一些默认设置

- 默认开启自动重连，可自行修改。开启/关闭自动重连不影响当前连接状态
- 点击右上角→:未连接过设备或解绑设备是扫描，有成功连接过则是命令测试
- 未开启重连，有成功连接过设备，可不用扫描直连设备

1. 外设状态及相关方法

1.1 初始化

需要在使用前初始化，建议放在 `didFinishLaunchingWithOptions` 内

```
_ = ZywlCommandModule.sharedInstance
```

1.2 扫描

扫描设备。`duration` 扫描时间，指定时间之后自动调用停止扫描也可以在此之前手动调用停止。每扫描到一个设备都会有回调，`scanModel` 扫描到的设备；`modelArray` 所有扫描到的设备，包括系统蓝牙已连接的设备

```
scanDevice(duration:TimeInterval,scanModel:@escaping((ZywlScanModel)->(Void)),modelArray:@escaping([(ZywlScanModel)]->(Void)))
```

1.3 停止扫描

```
stopScan()
```

1.4 连接设备

手动初始化 `scanModel` 做重连操作时，需要先连接过设备且重连标识有值，然后赋值 `String (uuidString)` 或 `CBPeripheral` 即可连接。未连接过设备直接手动创建无法连接

直接连接耳机的设备用耳机连接方法，通过充电仓转发命令的用充电仓方法

耳机设备连接方法

```
connectHeadphoneDevice(peripheral:Any,connectState:@escaping((Bool)->{}))
```

仓设备连接方法

```
connectChargingBoxDevice(peripheral:Any,connectState:@escaping((Bool)->{}))
```

设备连接成功会记录最后一次的 `uuidString` 作为重连的 `uuidString`。不开启重连可以用此方法获取 `uuidString`，不扫描直接连接设备。此属性作为重连标识，有值才可以重连

```
getHeadphoneReconnectIdentifier() -> String  
getChargingBoxReconnectIdentifier() -> String
```

1.5 断开连接/解绑设备

调用此方法之后会断开连接且把重连标识置空

```
disconnectHeadphone(complete:()->Void)? = nil  
disconnectChargingBox(complete:()->Void)? = nil
```

1.6 设置是否重连

已连接之后再开启会在下次启动的时候自动重连；已连接之后再关闭在此次之后都不会重连。设置此开关不影响当前设备的连接状态，当前设备是否连接也不影响设置此开关

```
setIsNeedReconnect(state:Bool)
```

1.7 设备连接成功回调

`true` 是充电仓，`false` 是耳机

```
reconnectDevice(complete:@escaping((Bool)->{}))
```

1.8 蓝牙开关状态

蓝牙开关属性

```
blePowerState:CBCentralManagerState = .unknown
```

开关变化之后回调方法

```
bluetoothPowerStateChange(state:@escaping((CBCentralManagerState)->()))
```

1.9 设备连接状态

状态变化之后回调方法

```
peripheralStateChange(state:@escaping((Bool,CBPeripheralState)->()))
```

异常 error

enum ZywLError: Int

case none	成功
case disconnected	断开连接
case invalidCharacteristic	无效特征值
case notSupport	不支持此功能
case invalidLength	无效长度
case noResponse	无响应
case noMoreData	没有更多数据
case fail	未知失败

2. 数据交互

2.1 设备功能列表项

chargingBoxFunctionListModel:ZycxFunctionListModel?

headphonesFunctionListModel:ZycxHeadphoneFunctionListModel? = nil

SDK 正常情况下连接成功获取到功能列表之后才会回调连接成功, 在连接成功之后无法获取到功能列表的情况下 30s 也会回调连接成功, 此类情况下功能列表属性为空

class ZycxFunctionListModel:NSObject

functionList_messagePush = false	消息推送
functionList_language = false	语言设置
functionList_alarm = false	闹钟
functionList_sedentary = false	久坐
functionList_vibrationRemind = false	震动
functionList_doNotDisturb = false	勿扰
functionList_lostRemind = false	防丢
functionList_weather = false	天气
functionList_lightControl = false	背光控制
functionList_addressBook = false	通讯录
functionList_onlineDial = false	在线表盘
functionList_customDial = false	自定义表盘
functionList_localDial = false	本地表盘

functionList_physiologicalCycle = false	生理周期
functionList_drinkWater = false	喝水提醒
functionList_photoControl = false	拍照控制
functionList_musicControl = false	音乐控制
functionList_findDevice = false	寻找设备
functionList_powerOff = false	关机
functionList_restart = false	重启
functionList_resetFactory = false	恢复出厂
functionList_handUpPhone = false	挂断电话
functionList_answerPhone = false	接听电话
functionList_timeFormat = false	时间制式
functionList_screenType = false	屏幕款式
functionList_classicBluetooth = false	经典蓝牙
functionList_bindClear = false	绑定清除数据
functionList_bind = false	绑定解绑
functionList_platformType = false	设备平台类型
functionList_sos = false	SOS 紧急联系人
functionList_localPlay = false	本地播放
functionList_editBleName = false	改蓝牙名
functionList_forwardingOfHeadphoneData = false	耳机转发

class ZycxFunctionModel_messagePush:NSObject	
isSupportCall = false	来电
isSupportSMS = false	短信
isSupportInstagram = false	
isSupportWechat = false	
isSupportQQ = false	
isSupportLine = false	
isSupportLinkedIn = false	
isSupportWhatsApp = false	
isSupportTwitter = false	X
isSupportFacebook = false	
isSupportMessenger = false	
isSupportSkype = false	
isSupportSnapchat = false	
isSupportAlipay = false	
isSupportTaoBao = false	
isSupportDouYin = false	
isSupportDingDing = false	
isSupportJingDong = false	
isSupportGmail = false	
isSupportViber = false	
isSupportYouTube = false	
isSupportKakaoTalk = false	

isSupportTelegram = false
isSupportHangouts = false
isSupportVkontakte = false
isSupportFlickr = false
isSupportTumblr = false
isSupportPinterest = false
isSupportTruecaller = false
isSupportPaytm = false
isSupportZalo = false
isSupportMicrosoftTeams = false

class ZycxFunctionModel_language:NSObject

isSupportEnglish = false
isSupportSimplifiedChinese = false
isSupportJapan = false
isSupportKorean = false
isSupportGerman = false
isSupportFrench = false
isSupportSpanish = false
isSupportArabic = false
isSupportRussian = false
isSupportTraditionalChinese = false
isSupportItalian = false
isSupportPortuguese = false
isSupportUkrainian = false
isSupportHindi = false
isSupportPolish = false
isSupportGreek = false
isSupportVietnamese = false
isSupportIndonesian = false
isSupportThai = false
isSupportDutch = false
isSupportTurkish = false
isSupportRomanian = false
isSupportDanish = false
isSupportSwedish = false
isSupportCzech = false
isSupportBengali = false
isSupportPersian = false
isSupportHebrew = false
isSupportMalay = false
isSupportSlovak = false
isSupportXhosa = false
isSupportSlovenian = false

英文
简体中文
日语
韩语
德语
法语
西班牙语
阿拉伯语
俄语
繁体中文
意大利语
葡萄牙语
乌克兰语
印度语
波兰语
希腊语
越南语
印尼语
泰语
荷兰语
土耳其
罗马尼亚
丹麦语
瑞典语
捷克语
孟加拉语
波斯语
希伯来语
马来语
斯洛伐克语
科萨语
斯洛文尼亚语

isSupportHungarian = false	匈牙利语
isSupportLithuanian = false	立陶宛语
isSupportUrdu = false	乌尔都语
isSupportBulgarian = false	保加利亚语
isSupportCroatian = false	克罗地亚语
isSupportLatvian = false	拉脱维亚语
isSupportEstonian = false	爱沙尼亚语
isSupportKhmer = false	高棉语
class ZycxFunctionModel_lightControl:NSObject	
screenLevelCount = 0	支持的亮度等级
screenTimeLong_max = 0	亮屏时长最大值
screenTimeLong_min = 0	亮屏时长最小值
screenTimeLong_interval = 1	亮屏时长间隔
class ZycxFunctionModel_alarm:NSObject	
maxAlarmCount = 0	最多支持多少个闹钟
isSupportEdit = false	是否支持增删
class ZycxFunctionModel_addressBook:NSObject	
maxContactCount = 0	支持的最大联系人数量
class ZycxFunctionModel_customDial:NSObject	
isSupportColorSetup = false	自定义表盘颜色设置, 0: 不支持, 1: 支持
dialSize = ZycxDialFrameSizeModel()	表盘尺寸
supportPositionTypeArray:[Int] = .init()	支持的位置信息; 0-8 分别为左上、左中、左下、右上、右中、右下、上、中、下
offsetY = 0	顶部偏移量
isShowTimePosition = true	是否支持时间位置显示
isShowTimeUp = true	是否支持时间上方
isShowTimeDown = true	是否支持时间下方
class ZycxDialFrameSizeModel:NSObject	
bigWidth:Int = 0	大图宽
bigHeight:Int = 0	大图高
smallWidth:Int = 0	预览图宽
smallHeight:Int = 0	预览图高
class ZycxFunctionModel_localDial:NSObject	
maxDialCount = 0	最大支持个数
class ZycxFunctionModel_screenType:NSObject	
supportType = 0	0:方 1:圆 2:圆角

```
class ZycxFunctionModel_localPlay:NSObject
```

```
    isSupportMp3 = false
```

```
    isSupportWav = false
```

耳机功能列表

```
class ZycxHeadphoneFunctionListModel:NSObject
```

```
    functionList_photoControl = false
```

```
    functionList_musicControl = false
```

```
    functionList_findDevice = false
```

```
    functionList_powerOff = false
```

```
    functionList_restart = false
```

```
    functionList_resetFactory = false
```

```
    functionList_handUpPhone = false
```

```
    functionList_answerPhone = false
```

```
    functionList_eqMode = false
```

```
    functionList_customEq = false
```

```
    functionList_ambientSoundEffect = false
```

```
    functionList_spaceSoundEffect = false
```

```
    functionList_inEarPerception = false
```

```
    functionList_extremeSpeedMode = false
```

```
    functionList_windNoiseResistantMode = false
```

```
    functionList_bassToneEnhancement = false
```

```
    functionList_lowFrequencyEnhancement = false
```

```
    functionList_coupletPattern = false
```

```
    functionList_desktopMode = false
```

```
    functionList_shakeSong = false
```

```
    functionList_deviceType = false
```

```
    functionList_customButton = false
```

```
    functionList_customButtonType = false
```

```
    functionList_soundEffectMode = false
```

```
    functionList_patternMode = false
```

```
    functionList_resetDefaultCustomButton = false
```

拍照控制

音乐控制

查找设备

关机控制

重启控制

恢复出厂控制

挂断电话

接听电话

eq 模式

自定义 eq

环境音设置

空间音效设置

入耳感知播放

极速模式

抗风噪模式

低音增强

低频增强

对联模式

桌面模式

摇一摇切歌

设备类型

自定义按键

自定义按键类型

音效模式

信号模式

恢复默认自定义按键

```
class ZycxHeadphoneFunctionModel_eqMode:NSObject
```

```
    isSupportDefault = false
```

```
    isSupportHeavyBass = false
```

```
    isSupportCinema = false
```

```
    isSupportDJ = false
```

```
    isSupportPopularity = false
```

```
    isSupportJazz = false
```

```
    isSupportClassical = false
```

```
    isSupportRockRoll = false
```

```
    isSupportOriginal = false
```

```
    isSupportNostalgia = false
```

0 默认

1 重低音

2 影院音效

3 DJ

4 流行

5 爵士

6 古典

7 摇滚

8 原声

9 怀旧

isSupportBeats = false	10 律动
isSupportDanceMusic = false	11 舞曲
isSupportElectrons = false	12 电子
isSupportLiyin = false	13 丽音
isSupportPureHumanVoice = false	14 纯净人声
isSupportCustomization = false	15 自定义

```
class ZycxHeadphoneFunctionModel_customButton:NSObject
    isSupportNoFunction = false           无功能
    isSupportPlayPause = false           播放/暂停
    isSupportLastSong = false            上一曲
    isSupportNextSong = false            下一曲
    isSupportVolumeAdd = false           音量加
    isSupportVolumeReduction = false     音量减
    isSupportCallAnswering = false       来电接听
    isSupportCallRejection = false       来电拒绝
    isSupportHangUp = false              挂断电话
    isSupportEnvironmentSoundSwitch = false 环境音切换
    isSupportVoiceAssistant = false      唤醒语音助手
    isSupportCallBack = false            回拨电话
    isSupportEqSwitch = false            eq 切换
    isSupportGameModeSwitch = false      游戏模式切换
    isSupportAncModeSwitch = false       ANC 模式切换
```

```
class ZycxHeadphoneFunctionModel_customButtonType:NSObject
    isSupportSingleClick = false         单机
    isSupportDoubleClick = false         双击
    isSupportThreeClick = false         三击
    isSupportLongPress = true            长按
    isSupportFourClick = true            四击
    isSupportFiveClick = true            五击
    isSupportSevenClick = true           七击
    isSupportTenClick = true             十击
```

```
class ZycxHeadphoneFunctionModel_ambientSoundEffect:NSObject
    isSupportPassThrough = false         通透
    isSupportNoiseReduction = false      降噪
    isSupportClose = true                关闭
```

```
class ZycxHeadphoneFunctionModel_spaceSoundEffect:NSObject
    isSupportMusic = false               音乐
    isSupportCinema = false              影院
    isSupportGame = false                游戏
    isSupportClose = true                关闭
```



```

class ZycxHeadphoneFunctionModel_soundEffectMode:NSObject
    isSupportSound = false                音响模式
    isSupportPrivacy = false              私密模式
    isSupportSpaceBass = false            空间低音

class ZycxHeadphoneFunctionModel_patternMode:NSObject
    isSupportCompatible = false           兼容
    isSupportThroughWall = false          穿墙
    isSupportOverspeed = false            超速

class ZycxHeadphoneFunctionModel_customEqModel:NSObject
    scopeCount = 6                        增益范围
    accuracyCount = 0                     分辨率(调节精度) 0 代表 0 100 代表 10
    frequencyArray:[Int] = .init()        调节频段 HZ

```

```

getZycxFunctionList(_ success:@escaping((ZycxFunctionListModel?,ZywlError)->Void))

```

2.2 设备信息查询

```

class ZycxDeviceInfomationModel:NSObject
    name = ""                            蓝牙名
    firmwareVersion = ""                 固件版本
    imageVersion = ""                    图库版本
    fontVersion = ""                     字体版本
    productId = ""                       产品 id
    projectId = ""                       项目 id
    mac = ""                             mac 地址
    serialNumber = ""                    序列号
    hardwareVersion = ""                  硬件版本
    dialSize = ZycxDialFrameSizeModel()

```

```

getZycxDeviceInfomation(_ success:@escaping((_ model:ZycxDeviceInfomationModel?,_
error:ZywlError)->Void))

```

2.3 获取设备参数

listArray 传空默认获取所有数据，单个数据 id 为: 0 时区 1 时间 2 时间制式 3 温度单位 4 屏幕亮度等级 5 亮屏时长 6 本地表盘序号 7 语言序号 8 消息提醒 9 闹钟 10 自定义表盘 11 天气数据 12 SOS 紧急联系人 13 常用联系人 14 UUID 15 震动 16 久坐 17 喝水 18 勿扰 19 防丢 20 生理周期 21 蓝牙名。部分功能无回复，如通讯录。不支持的功能无回复

```

class ZycxDeviceParametersModel:NSObject
    timezone = 0                        时区东区 1-12 , 西区 13-24
    timeString = ""                     时间 "yyyy-MM-dd HH:mm:ss"
    timeFormat_is12 = false              时间制式, 0: 24 小时制, 1: 12 小时制
    weatherUnit_isH = false              天气单位 0x00: 摄氏度 0x01: 华氏度

```

screenLightLevel = 0	屏幕亮度，范围：0~100%
screenLightTimeLong = 1	亮屏时间，范围：1~60 秒
localDialIndex = 0	当前本地表盘序号，范围：0~255
languageIndex = 0	当前语言，详见“语言类型列表说明”
messagePushModel:ZycxDeviceParametersModel_messagePush?	
alarmListModel:[ZycxDeviceParametersModel_alarm] = []	
customDialModel:ZycxDeviceParametersModel_customDial?	
weatherModel:ZycxDeviceParametersModel_weatherListModel?	
sosContactModel:ZycxDeviceParametersModel_contactPerson?	
addressBookContactListModel:[ZycxDeviceParametersModel_contactPerson] = []	
uuidString = ""	
vibration = false	震动，0-关闭 1-开启
sedentaryModel:ZycxDeviceParametersModel_sedentaryModel?	
drinkWaterModel:ZycxDeviceParametersModel_drinkWaterModel?	
disturbModel:ZycxDeviceParametersModel_disturbModel?	
lostRemind = false	
physiologicalModel:ZycxDeviceParametersModel_physiologicalModel?	
bleName = ""	

```
class ZycxDeviceParametersModel_messagePush:NSObject
```

```
isOpenCall = false
isOpenSMS = false
isOpenInstagram = false
isOpenWechat = false
isOpenQQ = false
isOpenLine = false
isOpenLinkedIn = false
isOpenWhatsApp = false
isOpenTwitter = false
isOpenFacebook = false
isOpenMessenger = false
isOpenSkype = false
isOpenSnapchat = false
isOpenAlipay = false
isOpenTaoBao = false
isOpenDouYin = false
isOpenDingDing = false
isOpenJingDong = false
isOpenGmail = false
isOpenViber = false
isOpenYouTube = false
isOpenKakaoTalk = false
isOpenTelegram = false
isOpenHangouts = false
```

```
isOpenVkontakte = false
isOpenFlickr = false
isOpenTumblr = false
isOpenPinterest = false
isOpenTruecaller = false
isOpenPaytm = false
isOpenZalo = false
isOpenMicrosoftTeams = false
```

```
class ZycxDeviceParametersModel_alarm:NSObject
```

```
    isValid:Bool = true
```

默认有效

```
    alarmIndex:Int = -1
```

闹钟序号，设置单个需要传序号，设置所

有不需要

```
    alarmOpen:Bool = false
```

闹钟开关

```
    alarmHour:Int = -1
```

```
    alarmMinute = -1
```

```
    alarmType:ZycxAlarmType = .single
```

```
    alarmRepeatArray:Array<Int>
```

下标 0-6 代表周日到周六

```
ZycxDeviceParametersModel_customDial:NSObject
```

```
    colorHex:String = "0xFFFFFFFF"
```

16 进制颜色值默认白色

```
    color:UIColor = .white
```

```
    positionType:ZycxPositionType = .leftTop
```

时间位置

```
    timeUpType:ZycxPositionShowType = .close
```

时间上方类型

```
    timeDownType:ZycxPositionShowType = .close
```

时间下方类型

```
class ZycxDeviceParametersModel_weatherListModel:NSObject
```

```
    timeString = ""           //时间    "yyyy-MM-dd HH:mm:ss"
```

```
    weatherArray:[ZycxDeviceParametersModel_weather] = .init()
```

```
class ZycxDeviceParametersModel_weather:NSObject
```

```
    dayCount:Int = 0
```

天序号，支持 7 天

```
    type:ZycxWeatherType = ZycxWeatherType.sunny
```

0 阴 1 雾 2 晴 3 多云 4 雪 5 雨

```
    temp:Int = 0
```

当前温度

```
    airQuality:Int = 0
```

空气质量

```
    minTemp:Int = 0
```

最低温度

```
    maxTemp:Int = 0
```

最高温度

```
class ZycxDeviceParametersModel_contactPerson:NSObject
```

```
    name = ""
```

姓名长度<=64 超出部分会被截掉

```
    phoneNumber = ""
```

号码长度<=32 超出部分会被截掉

```
class ZycxDeviceParametersModel_timeModel:NSObject
```

```
    startHour:Int = 0
```

startMinute:Int = 0

endHour:Int = 0

endMinute:Int = 0

class ZycxDeviceParametersModel_sedentaryModel:NSObject

isOpen:Bool = false 开关

timeLong:Int = 0 时长

timeArray:[ZycxDeviceParametersModel_timeModel] = [] 部分设备最多支持 2 组, 默认给 1 组即可

class ZycxDeviceParametersModel_drinkWaterModel:NSObject

isOpen:Bool = false 开关

remindInterval:Int = 0 提醒间隔

timeModel:ZycxDeviceParametersModel_timeModel = .init()

class ZycxDeviceParametersModel_disturbModel:NSObject

isOpen:Bool = false

timeModel:ZycxDeviceParametersModel_timeModel = .init()

class ZycxDeviceParametersModel_physiologicalModel:NSObject

isOpen:Bool = false 开关

cycleCount:Int = 0 周期天数

menstrualCount:Int = 0 经期天数

year:Int = 0

month:Int = 0

day:Int = 0

advanceDay:Int = 0 提前几天提醒

remindHour:Int = 0 提醒时

remindMinute:Int = 0 提醒分

```
getZycxDeviceParameters(listArray:[Int]? = nil , success:@escaping((_  
model:ZycxDeviceParametersModel?,_ error:ZywlError)->Void))
```

2.4 所有参数设置

```
setZycxDeviceParameters(model:ZycxDeviceParametersModel)
```

2.5 获取时区

```
getZycxTimezone(_ success:@escaping((_ timezone:Int,_ error:ZywlError)->Void))
```

2.6 设置时区

```
setZycxTimezone(timezone:Int,_ success:@escaping((_ error:ZywlError)->Void))
```

2.7 获取时间

```
getZycxTime(_ success:@escaping((_ timeString:String,_ error:ZywlError)->Void))
```

2.8 设置时间

```
setZycxTime(timeString:String? = nil,_ success:@escaping((_ error:ZywlError)->Void))
```

2.9 获取时间制

```
getZycxTimeformat(_ success:@escaping((_ timeformat:Bool,_ error:ZywlError)->Void))
```

2.10 设置时间制

```
setZycxTimeFormat(is12:Bool,_ success:@escaping((_ error:ZywlError)->Void))
```

2.11 获取温度单位

```
getZycxWeatherUnit(_ success:@escaping((_ weatherUnit:Bool,_ error:ZywlError)->Void))
```

2.12 设置温度单位

```
setZycxWeatherUnit(isH:Bool,_ success:@escaping((_ error:ZywlError)->Void))
```

2.13 获取屏幕亮度

```
getZycxScreenLightLevel(_ success:@escaping((_ level:Int,_ error:ZywlError)->Void))
```

2.14 设置屏幕亮度

```
setZycxScreenLightLevel(level:Int,_ success:@escaping((_ error:ZywlError)->Void))
```

2.15 获取亮屏时间

```
getZycxScreenLightTimeLong(_ success:@escaping((_ timelong:Int,_ error:ZywlError)->Void))
```

2.16 设置亮屏时间

```
setZycxScreenLightTimeLong(timeLong:Int,_ success:@escaping((_ error:ZywlError)->Void))
```

2.17 获取本地表盘序号

```
getZycxDialIndex(_ success:@escaping((_ index:Int,_ error:ZywlError)->Void))
```

2.18 设置本地表盘序号

```
setZycxDialIndex(index:Int,_ success:@escaping((_ error:ZywlError)->Void))
```

2.19 获取语言序号

```
getZycxLanguageIndex(_ success:@escaping((_ index:Int,_ error:ZywlError)->Void))
```

2.20 设置语言序号

```
setZycxLanguageIndex(index:Int,_ success:@escaping((_ error:ZywlError)->Void))
```

2.21 获取消息提醒开关

```
getZycxMessagePush(_ success:@escaping((_ model:ZycxDeviceParametersModel_messagePush?,_ error:ZywlError)->Void))
```

2.22 设置消息提醒开关

```
setZycxMessagePush(model:ZycxDeviceParametersModel_messagePush,_ success:@escaping((_ error:ZywlError)->Void))
```

2.23 获取闹钟

```
getZycxAlarmArray(_ success:@escaping((_ alarmArray:[ZycxDeviceParametersModel_alarm],_  
error:ZywlError)->Void))
```

2.24 设置闹钟

```
setZycxAlarmArray(alarmArray:[ZycxDeviceParametersModel_alarm],_ success:@escaping((_  
error:ZywlError)->Void))
```

2.25 获取自定义表盘信息

```
getZycxCustomDialInfomation(_ success:@escaping((_  
model:ZycxDeviceParametersModel_customDial?,_ error:ZywlError)->Void))
```

2.26 设置自定义表盘信息

```
setZycxCustomDialInfomation(model:ZycxDeviceParametersModel_customDial,_  
success:@escaping((_ error:ZywlError)->Void))
```

2.27 获取天气信息

```
getZycxWeather(_ success:@escaping((_ model:ZycxDeviceParametersModel_weatherListModel?,_  
error:ZywlError)->Void))
```

2.28 设置天气信息

```
setZycxWeather(model:ZycxDeviceParametersModel_weatherListModel,_ success:@escaping((_  
error:ZywlError)->Void))
```

2.29 获取 SOS 联系人

```
getZycxSosContact(_ success:@escaping((_ model:ZycxDeviceParametersModel_contactPerson?,_  
error:ZywlError)->Void))
```

2.30 设置 SOS 联系人

```
setZycxSosContact(model:ZycxDeviceParametersModel_contactPerson,_ success:@escaping((_  
error:ZywlError)->Void))
```

2.31 获取通讯录

```
getZycxAddressContact(_ success:@escaping((_  
model:[ZycxDeviceParametersModel_contactPerson],_ error:ZywlError)->Void))
```

2.32 设置通讯录

```
setZycxAddressContact(listModel:[ZycxDeviceParametersModel_contactPerson],_  
success:@escaping((_ error:ZywlError)->Void))
```

2.33 获取 UUID (此命令不需要操作)

```
getZycxDeviceUuidString(_ success:@escaping((_ uuidString:String,_ error:ZywlError)->Void))
```

2.34 设置 UUID (此命令不需要操作)

```
setZycxDeviceUuidString(uuid:String? = nil,_ success:@escaping((_ error:ZywlError)->Void))
```

2.35 获取震动

```
getZycxDeviceVibration(_ success:@escaping((_ isOpen:Bool,_ error:ZywlError)->Void))
```

2.36 设置震动

```
setZycxDeviceVibration(isOpen:Bool,_ success:@escaping((_ error:ZywlError)->Void))
```

2.37 获取久坐

```
getZycxSedentary(_ success:@escaping((_ model:ZycxDeviceParametersModel_sedentaryModel?,_  
error:ZywlError)->Void))
```

2.38 设置久坐

```
setZycxSedentary(model:ZycxDeviceParametersModel_sedentaryModel,_ success:@escaping((_  
error:ZywlError)->Void))
```

2.39 获取喝水

```
getZycxDrinkWater(_ success:@escaping((_ model:ZycxDeviceParametersModel_drinkWaterModel?,_  
error:ZywlError)->Void))
```

2.40 获取勿扰

```
getZycxDisturb(_ success:@escaping((_ model:ZycxDeviceParametersModel_disturbModel?,_  
error:ZywlError)->Void))
```

2.41 设置勿扰

```
setZycxDisturb(model:ZycxDeviceParametersModel_disturbModel,_ success:@escaping((_  
error:ZywlError)->Void))
```

2.42 获取防丢

```
getZycxLostRemind(_ success:@escaping((_ isOpen:Bool,_ error:ZywlError)->Void))
```


2.43 设置防丢

```
setZycxLostRemind(isOpen:Bool,_ success:@escaping(_ error:ZywlError)->Void))
```

2.44 获取生理周期

```
getZycxPhysiologicalCycle(_ success:@escaping(_  
model:ZycxDeviceParametersModel_physiologicalModel?,_ error:ZywlError)->Void))
```

2.45 设置生理周期

```
setZycxPhysiologicalCycle(model:ZycxDeviceParametersModel_physiologicalModel , _  
success:@escaping(_ error:ZywlError)->Void))
```

2.46 获取蓝牙名 (不需要操作)

```
getZycxBleName(_ success:@escaping(_ name:String,_ error:ZywlError)->Void))
```

2.47 设置蓝牙名

```
setZycxBleName(bleName:String , _ success:@escaping(_ error:ZywlError)->Void))
```

2.48 关机

```
setZycxPowerOff(_ success:@escaping(_ error:ZywlError)->Void))
```

2.49 重启

```
setZycxRestart(_ success:@escaping(_ error:ZywlError)->Void))
```

2.50 恢复出厂

```
setZycxResetFactory(_ success:@escaping(_ error:ZywlError)->Void))
```

2.51 恢复出厂并关机

```
setZycxResetFactoryAndPowerOff(_ success:@escaping(_ error:ZywlError)->Void))
```

2.52 船运模式 (无需操作)

```
setZycxShipMode(_ success:@escaping(_ error:ZywlError)->Void))
```

2.53 马达震动

```
setZycxVibrationMotor(isOpen:Bool,succcess:@escaping(_ error:ZywlError)->Void))
```

2.54 查找充电仓

```
setZycxFindChargingBox(isOpen:Bool,success:@escaping((_ error:ZywlError)->Void))
```

2.55 清除设备 BT 配对信息

```
setZycxClearBtInfomation(_ success:@escaping((_ error:ZywlError)->Void))
```

2.56 仓 BT 广播使能

```
setZycxBtRadioEnable(isOpen:Bool,success:@escaping((_ error:ZywlError)->Void))
```

2.57 APP 绑定

```
setZycxBindState(isBind:Bool,success:@escaping((_ error:ZywlError)->Void))
```

2.58 设备清除数据不重启

```
setZycxClearData(_ success:@escaping((_ error:ZywlError)->Void))
```

2.59 仓电量获取

```
getZycxBattery(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

2.60 耳机连接状态获取

```
getZycxHeadphoneConnectState(_ success:@escaping((_ value:Bool,_ error:ZywlError)->Void))
```

2.61 仓盖状态获取

```
getZycxBoxCoverState(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

2.62 仓 BT 可连接状态

```
getZycxBoxBtConnectStatus(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

2.63 仓电量上报

```
reportZycxBattery(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

2.64 温度单位上报

```
reportZycxWeatherUnit(_ success:@escaping((_ value:Bool,_ error:ZywlError)->Void))
```

2.65 屏幕亮度上报

```
reportZycxScreenLightLevel(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

2.66 亮屏时间上报

```
reportZycxScreenLightTimeLong(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

2.67 本地表盘序号上报

```
reportZycxLocalDialIndex(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

2.68 设备语言上报

```
reportZycxLanguageIndex(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

2.69 摇一摇切歌模式上报

```
reportZycxShakeSong(_ success:@escaping((_ value:Bool,_ error:ZywlError)->Void))
```

2.70 耳机连接状态上报

```
reportZycxHeadphoneConnectState(_ success:@escaping((_ value:Bool,_ error:ZywlError)->Void))
```

2.71 仓盖状态上报

```
reportZycxBoxCoverState(_ success:@escaping((_ value:Bool,_ error:ZywlError)->Void))
```

2.72 拍照模式上报（进入或退出）

```
reportZycxEnterOrExitCameraMode(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

2.73 拍照上报

```
reportZycxTakePhoto(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

2.74 设置音乐状态及音量

```
setZycxMusicState(_ state:Int,viocesVolume:Int)
```

2.75 设置进入或退出拍照

```
setZycxEnterOrExitCameraMode(_ state:Int)
```

2.76 开始升级

```
setOtaStartUpgrade(type:Int,localFile:Any,isContinue:Bool,progress:@escaping(Float) -> Void),success:@escaping((ZywlError) -> Void))
```

2.77 停止升级

```
setStopUpgrade(success:@escaping((ZywlError) -> Void))
```

2.78 检查升级状态

```
checkUpgradeState(success:@escaping([(String:Any],ZywlError) -> Void))
```

2.79 设置自定义表盘图片

```
setZycxCustomDial(image:UIImage,progress:@escaping(Float) -> Void),success:@escaping((ZywlError) -> Void))
```

2.80 设置本地音乐文件

```
setZycxLocalMusicFile(_ fileNmae:String, localFile:Any,progress:@escaping(Float) -> Void),success:@escaping((ZywlError) -> Void))
```

3. 以下为耳机功能，直接连跟仓转发方法是一样的。仓转发需要把 isForwardingData 设置为 true

3.1 查询功能列表

```
getZycxHeadphoneFunctionList(isForwardingData:Bool = false, success:@escaping((ZycxHeadphoneFunctionListModel?,ZywlError)->Void))
```

3.2 设备信息查询

```
getZycxHeadphoneDeviceInfomation(isForwardingData:Bool = false, success:@escaping((_ model:ZycxHeadphoneDeviceInfomationModel?,_ error:ZywlError)->Void))
```

3.3 查询参数设置

```
class ZycxHeadphoneDeviceParametersModel:NSObject
```

```
customButtonList:[ZycxHeadphoneDeviceParametersModel_customButton] = .init()  
自定义按键
```

```
eqMode = 0          eq 模式 0: 默认、1: 重低音、2: 影院音效、3: DJ、4: 流行、5: 爵士、6: 古典、7: 摇滚、8: 原声、9: 怀旧、10: 律动、11: 舞曲、12: 电子、13: 丽音、14: 纯净人声、15: 自定义
```

```
customEqModel:ZycxHeadphoneDeviceParametersModel_customEqModel?      自定义 EQ 音效
```

```
ambientSoundEffect = 0          环境音, 0: 关闭/默认、1: 通透、2: 降噪
```

spaceSoundEffect = 0	空间音效, 0: 关闭/默认、1: 音乐、2: 影院、3: 游戏
inEarPerception = 0	入耳感知播放, 0: 关闭/默认 1: 开
extremeSpeedMode = 0	极速模式, 0: 关闭/默认、1: 开
windNoiseResistantMode = 0	抗风噪模式, 0: 关闭/默认、1: 开
bassToneEnhancement = 0	低音增强模式, 0: 关闭/默认、1: 开
lowFrequencyEnhancement = 0	低频增强模式, 0: 关闭/默认、1: 开
coupletPattern = 0	对联模式, 0: 关闭/默认、1: 开
desktopMode = 0	桌面模式, 0: 关闭/默认、1: 开
shakeSong = 0	摇一摇切歌模式 0: 关闭/默认 1: 开
voiceVolume = 0	耳机音量 0x0 到 0x16
leftBattery = 0	左耳耳机电量
rightBattery = 0	右耳耳机电量
soundEffectMode = 0	音效模式, 0: 音响模式、1: 私密模式、2: 空间低音
patternMode = 0	信号模式, 0: 兼容模式、1: 穿墙模式、2: 超速模式

```
class ZycxHeadphoneDeviceParametersModel_customButton:NSObject
```

```
    headphoneType = 0 //0: 左耳, 1: 右耳
```

```
    touchType = 0 //0 单击, 1 双击, 2 三击, 3 长按
```

```
    commandType = 0 //0 无功能 1 播放/暂停 2 上一曲 3 下一曲 4 音量+ 5 音量- 6 来电接听 7
来电拒绝 8 挂断电话 9 环境音切换 10 唤醒语音助手 11 回拨电话 12eq 切换 13 游戏模式切换 14ANC
切换
```

```
class ZycxHeadphoneDeviceParametersModel_customEqModel:NSObject
```

```
    totalBuff = 0 //范围-12dB~12dB; 分辨率 0.1; 0 代表-12dB、120 代表 0dB、240 代表
12dB
```

```
    eqListArray:[ZycxHeadphoneDeviceParametersModel_customEqItem] = .init()
```

```
class ZycxHeadphoneDeviceParametersModel_customEqItem:NSObject
```

```
    frequency = 0 //1 代表 1HZ
```

```
    buff = 0 //范围-12dB~12dB; 分辨率 0.1; 0 代表-12dB、120 代表 0dB、240 代表
12dB
```

```
    Qvalue = 10 //分辨率 0.1; 0 代表 0, 100 代表 10
```

```
    type = 0 //0: 直通、1: 低架、2: 高架 3: 低通 4: 高通
```

```
getZycxHeadphoneDeviceParameters(isForwardingData:Bool = false,listArray:[Int]? = nil ,
success:@escaping((_ model:ZycxHeadphoneDeviceParametersModel?,_ error:ZywlError)->Void))
```

3.4 耳机参数设置

```
setZycxHeadphoneDeviceParameters(isForwardingData:Bool =
false,model:ZycxHeadphoneDeviceParametersModel)
```

3.5 获取自定义按键

```
getZycxHeadphoneCustomButtonList(isForwardingData:Bool = false,success:@escaping((_
listArray:[ZycxHeadphoneDeviceParametersModel_customButton],_ error:ZywlError)->Void))
```

3.6 设置自定义按键

```
setZycxHeadphoneCustomButtonList(isForwardingData:Bool =  
false,listArray:[ZycxHeadphoneDeviceParametersModel_customButton],_ success:@escaping((_  
error:ZywlError)->Void))
```

3.7 获取 eq 模式

```
getZycxHeadphoneEqMode(isForwardingData:Bool = false,success:@escaping((_ type:Int,_  
error:ZywlError)->Void))
```

3.8 设置 eq 模式

```
setZycxHeadphoneEqMode(isForwardingData:Bool = false,type:Int,success:@escaping((_  
error:ZywlError)->Void))
```

3.9 获取自定义 eq

```
getZycxHeadphoneCustomEq(isForwardingData:Bool = false,success:@escaping((_  
customModel:ZycxHeadphoneDeviceParametersModel_customEqModel?,_ error:ZywlError)->Void))
```

3.10 设置自定义 eq

```
setZycxHeadphoneCustomEq(isForwardingData:Bool =  
false,customModel:ZycxHeadphoneDeviceParametersModel_customEqModel,success:@escaping((_  
error:ZywlError)->Void))
```

3.11 获取环境音

```
getZycxHeadphoneAmbientSoundEffect(isForwardingData:Bool = false,success:@escaping((_ type:Int,_  
error:ZywlError)->Void))
```

3.12 设置环境音

```
setZycxHeadphoneAmbientSoundEffect(isForwardingData:Bool = false,type:Int,success:@escaping((_  
error:ZywlError)->Void))
```

3.13 获取空间音效

```
getZycxHeadphoneSpaceSoundEffect(isForwardingData:Bool = false,success:@escaping((_ type:Int,_  
error:ZywlError)->Void))
```

3.14 设置空间音效

```
setZycxHeadphoneSpaceSoundEffect(isForwardingData:Bool = false,type:Int,success:@escaping((_  
error:ZywlError)->Void))
```

3.15 获取入耳感知播放

```
getZycxHeadphoneInEarPerception(isForwardingData:Bool = false,success:@escaping((_ type:Int,_  
error:ZywlError)->Void))
```

3.16 设置入耳感知播放

```
setZycxHeadphoneInEarPerception(isForwardingData:Bool = false,type:Int,success:@escaping((_
```

```
error:ZywlError)->Void))
```

3.17 获取极速模式

```
getZycxHeadphoneExtremeSpeedMode(isForwardingData:Bool = false,success:@escaping((_ type:Int,_ error:ZywlError)->Void))
```

3.18 设置极速模式

```
setZycxHeadphoneExtremeSpeedMode(isForwardingData:Bool = false,type:Int,success:@escaping((_ error:ZywlError)->Void))
```

3.19 获取抗风噪模式

```
getZycxHeadphoneWindNoiseResistantMode(isForwardingData:Bool = false,success:@escaping((_ type:Int,_ error:ZywlError)->Void))
```

3.20 设置抗风噪模式

```
setZycxHeadphoneWindNoiseResistantMode(isForwardingData:Bool = false,type:Int,success:@escaping((_ error:ZywlError)->Void))
```

3.21 获取低音增强模式

```
getZycxHeadphoneBassToneEnhancement(isForwardingData:Bool = false,success:@escaping((_ type:Int,_ error:ZywlError)->Void))
```

3.22 获取低频增强

```
getZycxHeadphoneLowFrequencyEnhancement(isForwardingData:Bool = false,success:@escaping((_ type:Int,_ error:ZywlError)->Void))
```

3.23 设置低频增强

```
setZycxHeadphoneLowFrequencyEnhancement(isForwardingData:Bool = false,type:Int,success:@escaping((_ error:ZywlError)->Void))
```

3.24 获取对联模式

```
getZycxHeadphoneCoupletPattern(isForwardingData:Bool = false,success:@escaping((_ type:Int,_ error:ZywlError)->Void))
```

3.25 设置对联模式

```
setZycxHeadphoneCoupletPattern(isForwardingData:Bool = false,type:Int,success:@escaping((_ error:ZywlError)->Void))
```

3.26 获取桌面模式

```
getZycxHeadphoneDesktopMode(isForwardingData:Bool = false,success:@escaping((_ type:Int,_ error:ZywlError)->Void))
```

3.27 设置桌面模式

```
setZycxHeadphoneDesktopMode(isForwardingData:Bool = false,type:Int,success:@escaping((_
```

```
error:ZywlError)->Void))
```

3.28 获取摇一摇切歌模式

```
getZycxHeadphoneShakeSong(isForwardingData:Bool = false,success:@escaping((_ type:Int,_  
error:ZywlError)->Void))
```

3.29 设置摇一摇切歌模式

```
setZycxHeadphoneShakeSong(isForwardingData:Bool = false,type:Int,success:@escaping((_  
error:ZywlError)->Void))
```

3.30 获取耳机音量

```
getZycxHeadphoneVoiceVolume(isForwardingData:Bool = false,success:@escaping((_ type:Int,_  
error:ZywlError)->Void))
```

3.31 设置耳机音量

```
setZycxHeadphoneVoiceVolume(isForwardingData:Bool = false,type:Int,success:@escaping((_  
error:ZywlError)->Void))
```

3.32 获取耳机电量

```
getZycxHeadphoneBattery(isForwardingData:Bool = false,success:@escaping((_ leftBattery:Int,_  
rightBattery:Int,_ error:ZywlError)->Void))
```

3.33 设置耳机电量

```
setZycxHeadphoneBattery(isForwardingData:Bool =  
false,leftBattery:Int,rightBattery:Int,success:@escaping((_ error:ZywlError)->Void))
```

3.34 获取音效模式

```
getZycxHeadphoneSoundEffectMode(isForwardingData:Bool = false,success:@escaping((_ type:Int,_  
error:ZywlError)->Void))
```

3.35 设置音效模式

```
setZycxHeadphoneSoundEffectMode(isForwardingData:Bool = false,type:Int,success:@escaping((_  
error:ZywlError)->Void))
```

3.36 获取信号模式

```
getZycxHeadphonePatternMode(isForwardingData:Bool = false,success:@escaping((_ type:Int,_  
error:ZywlError)->Void))
```

3.37 设置信号模式

```
setZycxHeadphonePatternMode(isForwardingData:Bool = false,type:Int,success:@escaping((_  
error:ZywlError)->Void))
```

3.38 关机

```
setZycxHeadphonePowerOff(isForwardingData:Bool = false, success:@escaping((_
```



```
error:ZywlError)->Void))
```

3.39 重启

```
setZycxHeadphoneRestart(isForwardingData:Bool = false, success:@escaping((_ error:ZywlError)->Void))
```

3.40 恢复出厂

```
setZycxHeadphoneResetFactory(isForwardingData:Bool = false, success:@escaping((_ error:ZywlError)->Void))
```

3.41 恢复出厂并关机

```
setZycxHeadphoneResetFactoryAndPowerOff(isForwardingData:Bool = false, success:@escaping((_ error:ZywlError)->Void))
```

3.42 寻找耳机

```
setZycxHeadphoneFind(isForwardingData:Bool = false, headphoneType:Int, isStart:Int, success:@escaping((_ error:ZywlError)->Void))
```

3.43 拍照控制

```
setZycxHeadphoneTakePhoto(isForwardingData:Bool = false, success:@escaping((_ error:ZywlError)->Void))
```

3.44 自定义按键恢复默认设置

```
setZycxHeadphoneCustomButtonResetDefault(isForwardingData:Bool = false, success:@escaping((_ error:ZywlError)->Void))
```

3.45 经典蓝牙连接状态查询

```
getZycxHeadphoneBtConnctState(isForwardingData:Bool = false, success:@escaping((_ state:Int, _ error:ZywlError)->Void))
```

3.46 查询 TWS 是否配对

```
getZycxHeadphoneTwslsPair(isForwardingData:Bool = false, success:@escaping((_ state:Int, _ error:ZywlError)->Void))
```

3.47 电量上报

```
reportZycxHeadphoneBattery(_ success:@escaping((_ leftBattery:Int, _ rightBattery:Int, _ error:ZywlError)->Void))
```

3.48 查找设备上报

```
reportZycxHeadphoneFind(_ success:@escaping((_ value:Int, _ error:ZywlError)->Void))
```

3.49 环境音上报

```
reportZycxHeadphoneAmbientSoundEffect(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

3.50 空间音效上报

```
reportZycxHeadphoneSpaceSoundEffect(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

3.51 入耳感知播放上报

```
reportZycxHeadphoneInEarPerception(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

3.52 极速模式上报

```
reportZycxHeadphoneExtremeSpeedMode(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

3.53 抗风噪上报

```
reportZycxHeadphoneWindNoiseResistantMode(_ success:@escaping((_ value:Int,_  
error:ZywlError)->Void))
```

3.54 低音增强上报

```
reportZycxHeadphoneBassToneEnhancement(_ success:@escaping((_ value:Int,_  
error:ZywlError)->Void))
```

3.55 低频增强上报

```
reportZycxHeadphoneLowFrequencyEnhancement(_ success:@escaping((_ value:Int,_  
error:ZywlError)->Void))
```

3.56 对量模式上报

```
reportZycxHeadphoneCoupletPattern(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

3.57 桌面模式上报

```
reportZycxHeadphoneDesktopMode(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

3.58 摇一摇切歌模式上报

```
reportZycxHeadphoneShakeSong(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

3.59 eq 模式上报

```
reportZycxHeadphoneEqMode(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

3.60 耳机音量上报

```
reportZycxHeadphoneVoiceVolume(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

3.61 开始升级

```
setUpdateFirmware(progress:@escaping((Int)->Void),complete:@escaping((Int,ZywlError)->Void))
```

3.62 自定义按键上报

```
reportZycxHeadphoneCustomButton(_ success:@escaping((_ value:[ZycxHeadphoneDeviceParametersModel_customButton],_ error:ZywlError)->Void))
```

3.63 经典蓝牙连接状态上报

```
reportZycxHeadphoneClassicBluetoothConnect(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

3.64 音效模式上报

```
reportZycxHeadphoneSoundEffectMode(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

3.65 信号模式上报

```
reportZycxHeadphonePatternMode(_ success:@escaping((_ value:Int,_ error:ZywlError)->Void))
```

3.66

3.67

3.68