Mobile VR

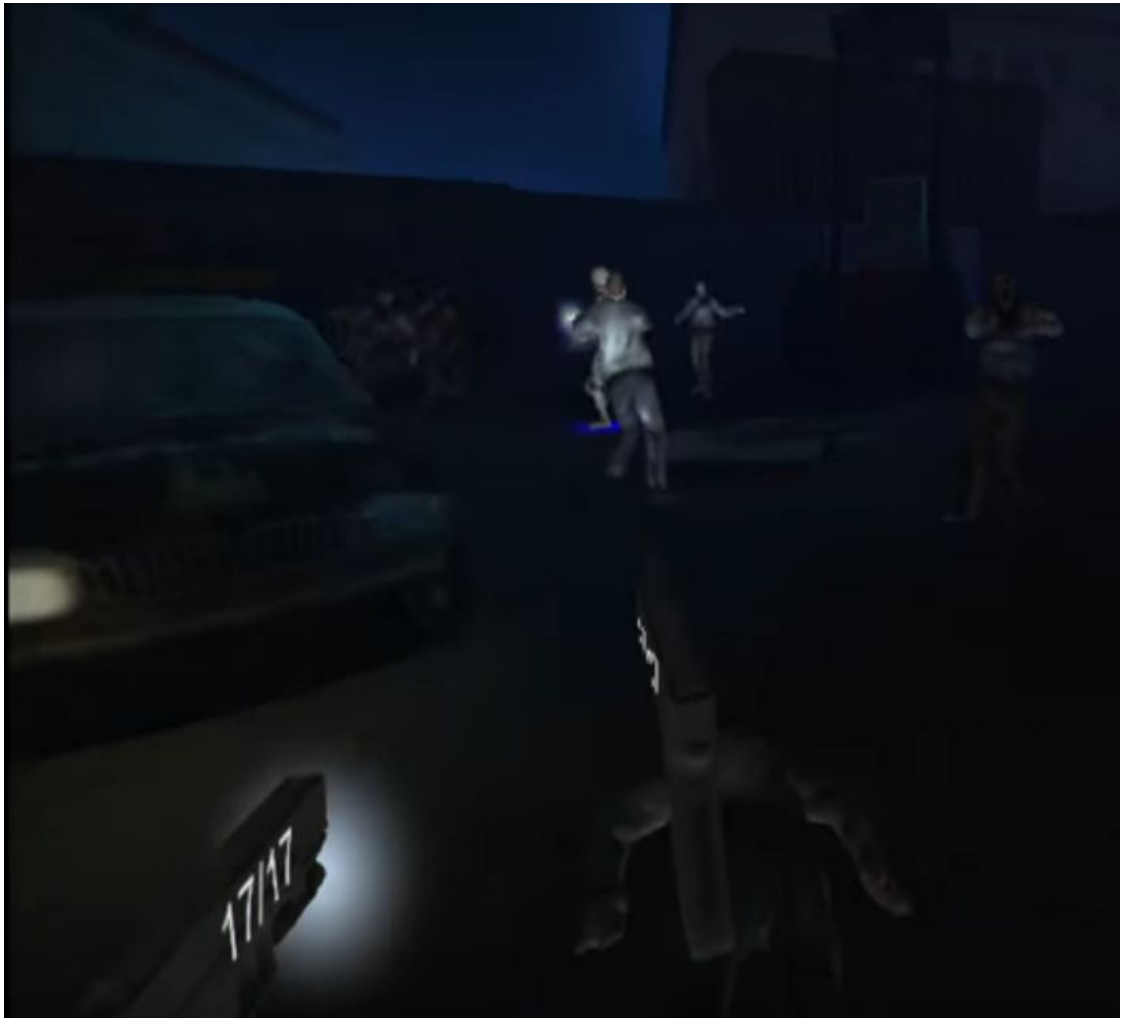
Finch Technologies

Dash

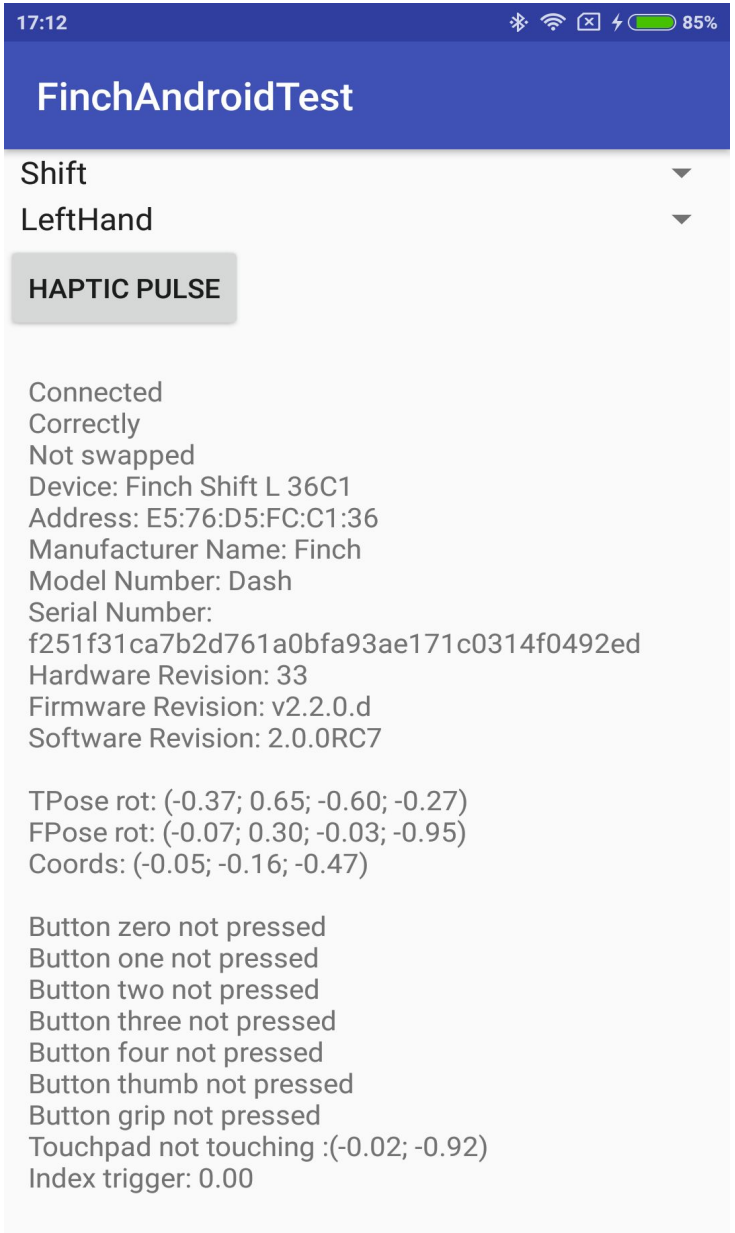
Shift

Hands

Mobile VR & 6DOF



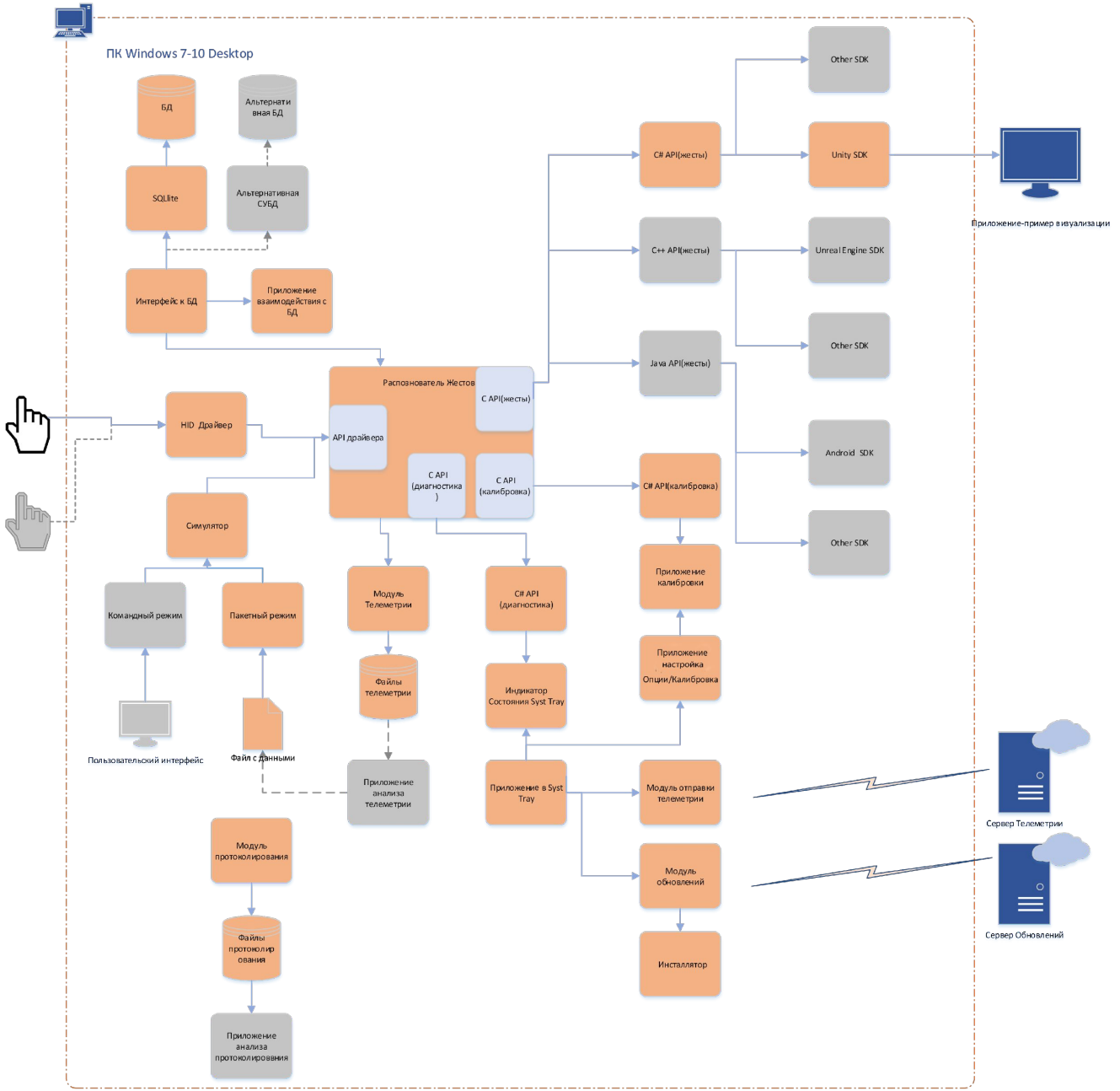
GUI


17:12
85%
FinchAndroidTest
Shift
LeftHand
HAPTIC PULSE
Connected
Correctly
Not swapped
Device: Finch Shift L 36C1
Address: E5:76:D5:FC:C1:36
Manufacturer Name: Finch
Model Number: Dash
Serial Number:
f251f31ca7b2d761a0bfa93ae171c0314f0492ed
Hardware Revision: 33
Firmware Revision: v2.2.0.d
Software Revision: 2.0.0RC7
TPose rot: (-0.37; 0.65; -0.60; -0.27)
FPose rot: (-0.07; 0.30; -0.03; -0.95)
Coords: (-0.05; -0.16; -0.47)
Button zero not pressed
Button one not pressed
Button two not pressed
Button three not pressed
Button four not pressed
Button thumb not pressed
Button grip not pressed
Touchpad not touching :(-0.02; -0.92)
Index trigger: 0.00

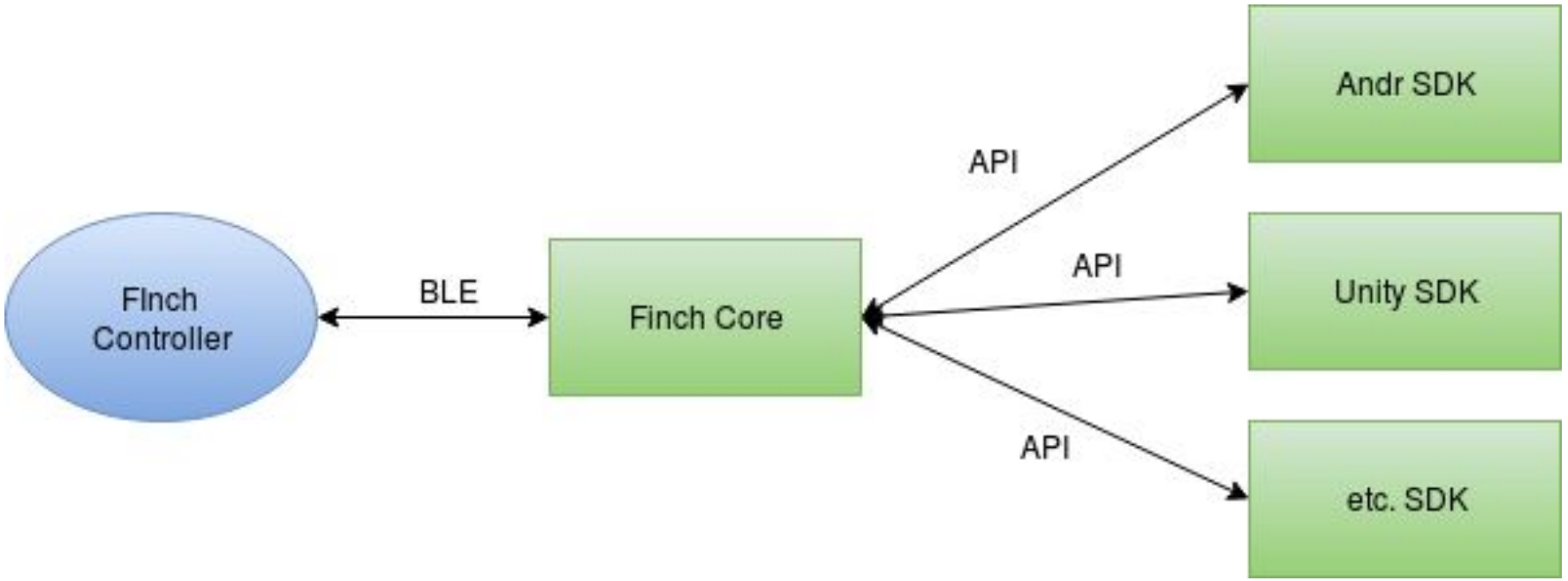
API & Services

```
/*
 * Calibration
 */
/// Sets user defined coordinate system.
JNIEXPORT void JNICALL Java_com_finchtechnologies_android_Core_setCs(
        JNIEnv *env, jclass clazz,
        float xx, float xy, float xz,
        float yx, float yy, float yz,
        float zx, float zy, float zz);
/// Sets coordinate system to default coordinate system.
JNIEXPORT void JNICALL Java_com_finchtechnologies_android_Core_setDefaultCs(JNIEnv *env, jclass clazz);
/// Resets calibrate the selected chirality.
JNIEXPORT void JNICALL Java_com_finchtechnologies_android_Core_resetCalibration(JNIEnv *env, jclass clazz, FinchChirality chirality);
/// Sets forward direction of user by selected direction of hand.
JNIEXPORT void JNICALL Java_com_finchtechnologies_android_Core_recenter(JNIEnv *env, jclass clazz, FinchChirality chirality, FinchRecenterM
/// Calibration with the redefine of the chirality of node.
JNIEXPORT void JNICALL Java_com_finchtechnologies_android_Core_chiralityRedefine(JNIEnv *env, jclass clazz, FinchBool during);
/// Returns true, if chirality redefining calibration in process.
JNIEXPORT jboolean JNICALL Java_com_finchtechnologies_android_Core_isChiralityRedefining(JNIEnv *env, jclass clazz);
/// Full axis calibration.
JNIEXPORT void JNICALL Java_com_finchtechnologies_android_Core_axisCalibration(JNIEnv *env, jclass clazz, FinchChirality chirality, FinchAx
/// Calculates axis calibration matrices by current pose.
JNIEXPORT void JNICALL Java_com_finchtechnologies_android_Core_onePoseAxisCalibration(JNIEnv *env, jclass clazz, FinchChirality chirality,
/// Sets the value of the selected bone length.
JNIEXPORT void JNICALL Java_com_finchtechnologies_android_Core_setBoneLength(JNIEnv *env, jclass clazz, FinchBone bone, float length);
/// Returns the bone length skeletal model.
JNIEXPORT jfloat JNICALL Java_com_finchtechnologies_android_Core_getBoneLength(JNIEnv *env, jclass clazz, FinchBone bone);
/// Sets the value of the body rotation mode.
JNIEXPORT void JNICALL Java_com_finchtechnologies_android_Core_setBodyRotationMode(JNIEnv *env, jclass clazz, FinchBodyRotationMode mode);
/// Returns the body rotation mode used in the Finch Core.
JNIEXPORT jint JNICALL Java_com_finchtechnologies_android_Core_getBodyRotationMode(JNIEnv *env, jclass clazz);
```

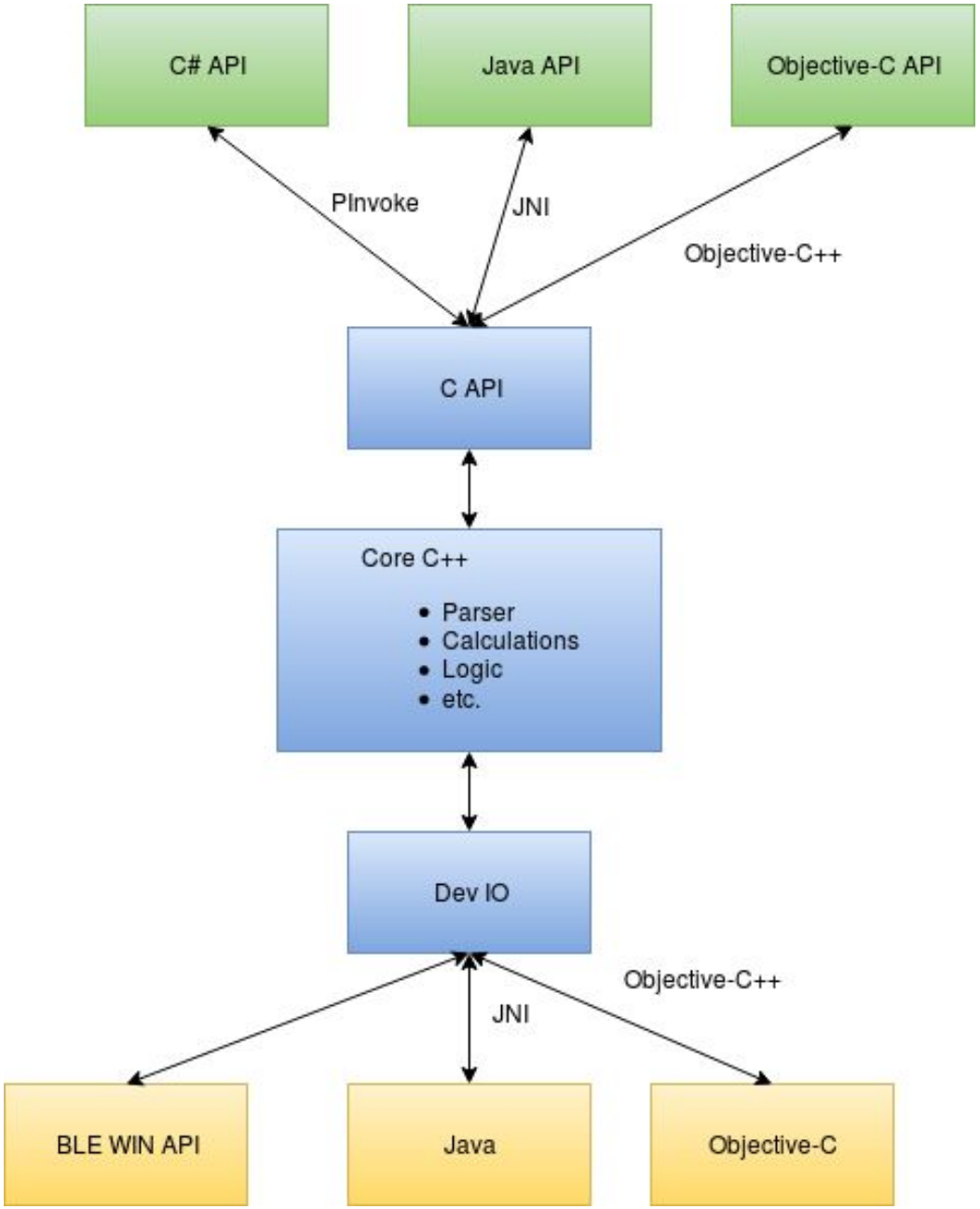
Finch Runtime



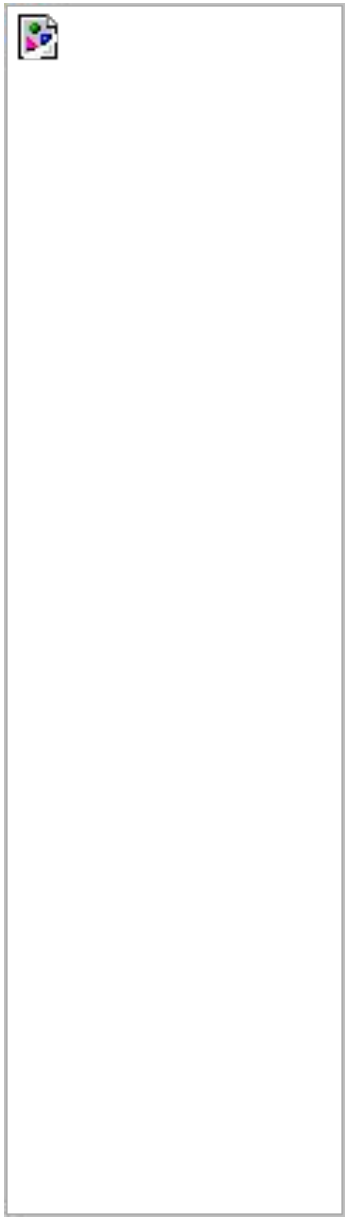
Finch FW/SW Simple



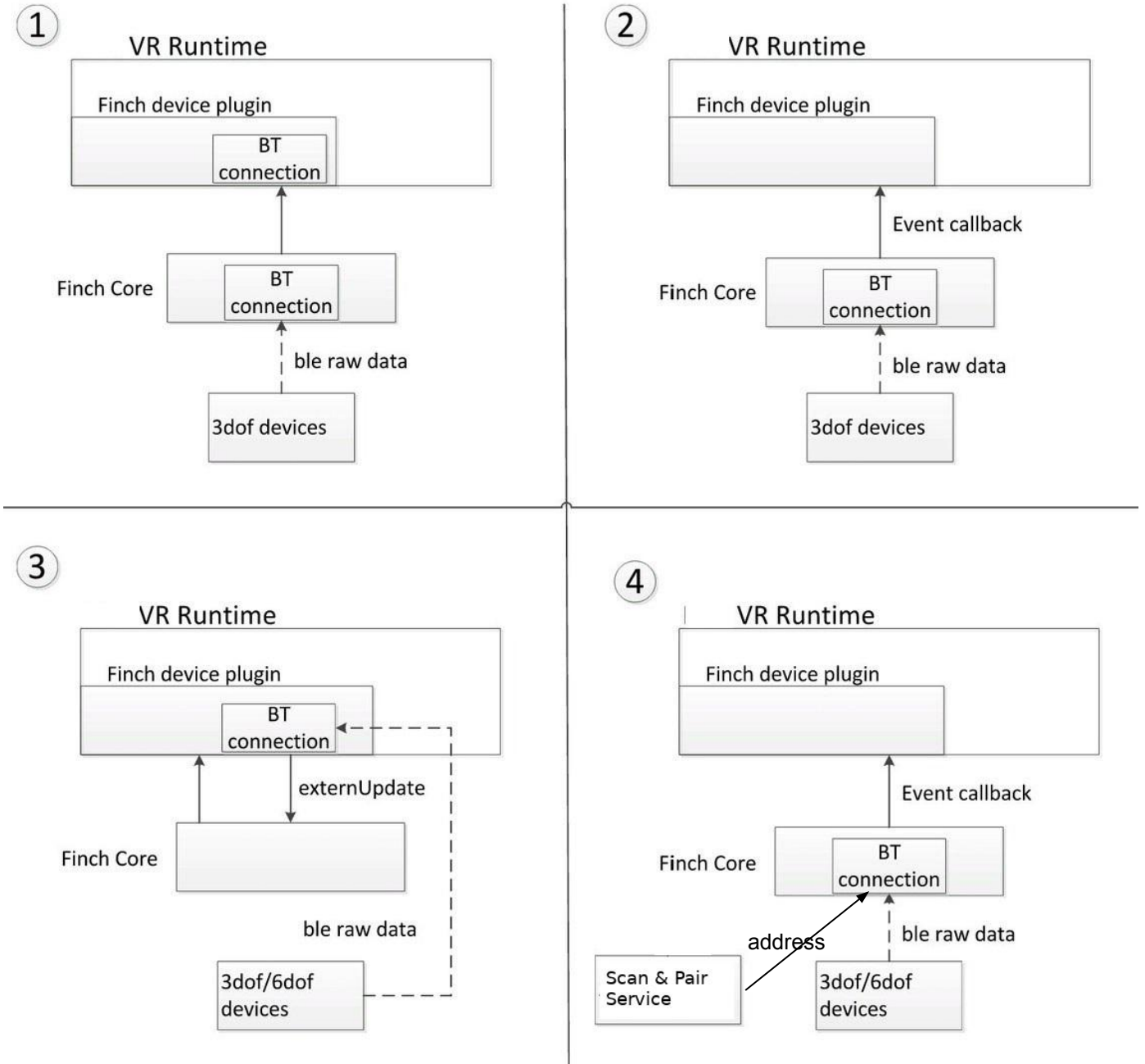
Finch Core


C# API
Java API
Objective-C API
PInvoke
JNI
Objective-C++
C API
Core C++
Parser
Calculations
Logic
etc.
Dev IO
Objective-C++
JNI
BLE WIN API
Java
Objective-C

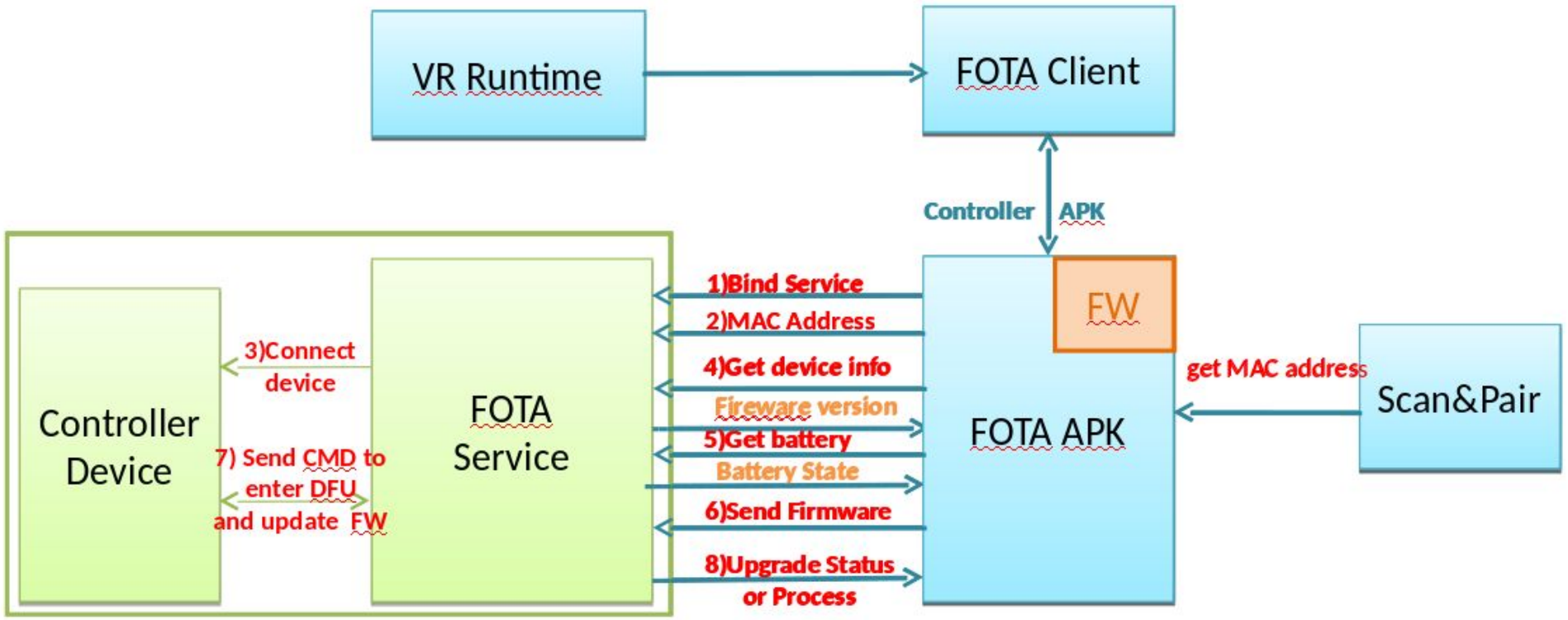
IO Service



VR Runtime


1
VR Runtime
Finch device plugin
BT connection
Finch Core
BT connection
ble raw data
3dof devices
2
VR Runtime
Finch device plugin
Event callback
Finch Core
BT connection
ble raw data
3dof devices
3
VR Runtime
Finch device plugin
BT connection
externUpdate
Finch Core
ble raw data
3dof/6dof devices
4
VR Runtime
Finch device plugin
Event callback
Finch Core
BT connection
address
ble raw data
Scan & Pair Service
3dof/6dof devices

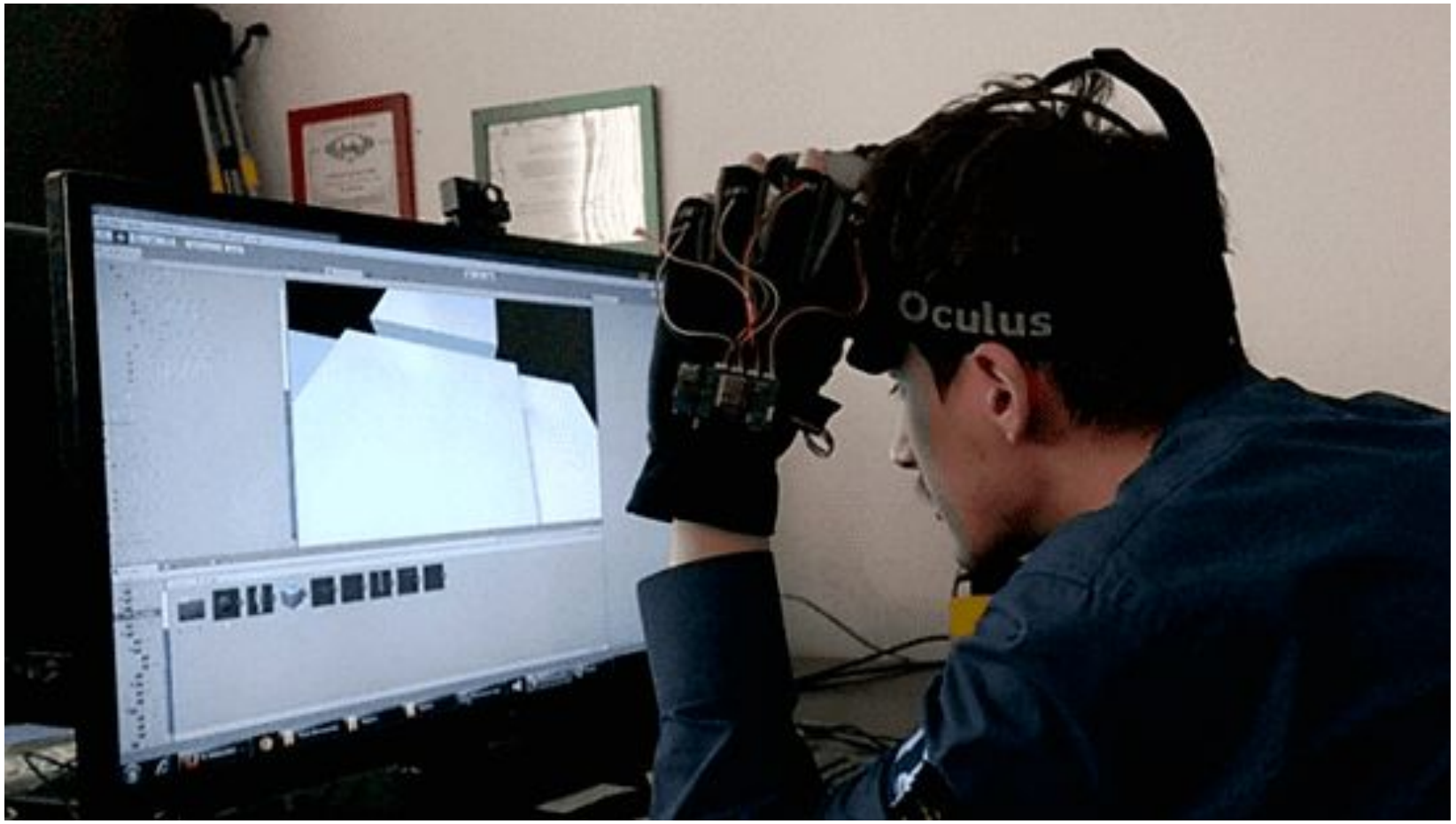
FOTA Service



For Developer

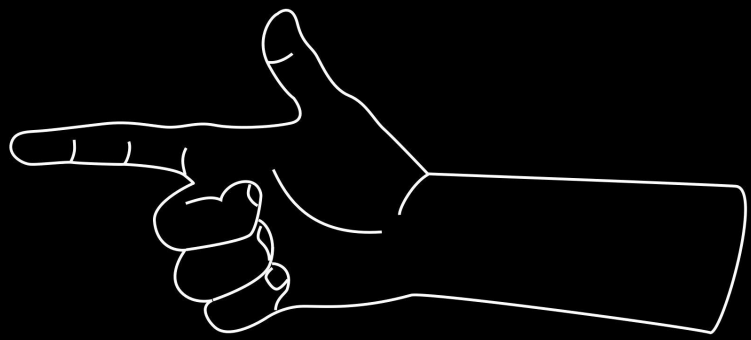
Return type	Name	Arguments	Description
bool	IsHandNodeConnected	-	Returns true, if hand node have state FinchNodesStateType.Connected
bool	GetPress	FinchControllerElement element	Element was pressed
bool	GetPressDown	FinchControllerElement element	Element has just been pressed
bool	GetPressUp	FinchControllerElement element	Element has just been unpressed
float	GetIndexTrigger	-	Returns IndexTrigger value
float	GetMiddleTrigger	-	Returns MiddleTrigger value
UnityEngine.Vector2	GetTouchAxes	-	Returns touchpos coordinates
bool	IsTouching	-	Returns true, if touchpad element is touched, otherwise false
UnityEngine.Quaternion	GetRotation	-	Returns controller rotation
UnityEngine.Vector3	GetPosition	-	Returns controller posistion
UnityEngine.Vector3	GetGyro	-	Returns gyroscope value in local coordinate system
UnityEngine.Vector3	GetAccel	-	Returns accelerometer value in local coordinate system
void	Calibrate	-	Calibrates arm with controller chirality
void	Recenter	-	Recenters arm with controller chirality
void	HapticPulse	uint millisecond	Sends vibration signal to the controller node. There will be vibration in certain milliseconds time, but not more than 2500 ms
void	HapticPulse	params VibrationPackage[] millisecond	Sends instructions pack for vibration engine to the controller node. Every next instruction will be work after previous one end

Really for Developer



R & D: Gesture Recognizer

РАСКРОЙТЕ ЛАДОНЬ, ЧТОБЫ СКИНУТЬ ОРУЖИЕ



ВЫПРЯМИТЕ УКАЗАТЕЛЬНЫЙ И БОЛЬШОЙ ПАЛЬЦЫ,
ЧТОБЫ ВЗЯТЬ ПИСТОЛЕТ

Machine Learning

Questions

- ***Thank you for attention!***
- ***www: finch-vr.com***
- ***mail: dg@finch-vr.com***
- ***telegram: @terik23***