Motion Detection SDK

The user interaction with Motion Detection SDK is through four major core components.

1. SensorDataManager
2. ActionCycleState
3. GestureMotionTemplate
4. IUserNotification
5. **SensorDataManager**

This is the core component of SDK which deals with the sensors directly, gather data and deliver it to the specific Template implementation.

Constructor

new SensorDataManager(IAccelerometerGestureMotion gestureMotion, ISensorDataManager iSensorDataManager);

Usage

sensorDataManager.setAccGestureMotion(gestureMotionTemplate);

sensorDataManager.listenSensor(getContext());

1. **ActionCycleState**

This component keeps track of gesture completion in half cycle and full cycle basis. This is a predefined component which comes as part of SDK to reduce the end user’s complexity of keeping track of state.

This component will also take care of different pre-defined ways of notifying the end-user about current state.

Constructor

public ActionCycleState(IActionCycleState iActionCycleState)

Usage

Counter:

**actionCycleState**.getCounter()

Reset:

**actionCycleState**.resetCounter();

User notification:

**actionCycleState**.addUserNotification(**new** VibrationNotification((Vibrator) getContext().getSystemService(Context.***VIBRATOR\_SERVICE***)),  
 **new** SpeechNotification(**iSpeechManager**, gestureMotion));

1. **GestureMotionTemplate**

This is the component which helps the SDK to extend itself into lot more gestures which involve lot of sensors too.

1. **IUserNotification**

This component works with ActionCycleState to indicate the end-user about the current state.

* **VibrationNotification**

This is an implementation of IUserNotification which comes as part of SDK which will vibrate differently on half cycle and full cycle.

* **SpeechNotification**

This is another implementation of IUserNotification which uses TextToSpeech feature of android SDK to give a full speech experience of current state and indicates what to do next.

Usage:

actionCycleState.addUserNotification(new VibrationNotification((Vibrator) getContext().getSystemService(Context.VIBRATOR\_SERVICE)),

new SpeechNotification(iSpeechManager, gestureMotion));