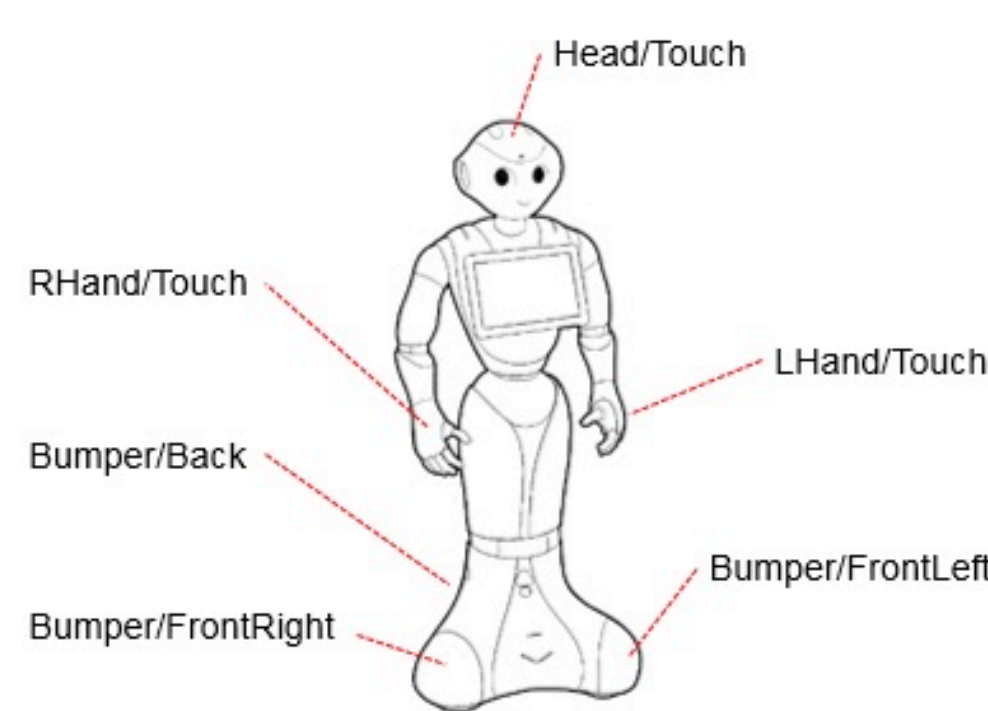


Sensor Events

Pepper robot has many sensors, it includes touch sensors and power switch cover.

In Pepper, the touch sensors include head, left hand, right hand, left front buffer, right front buffer, back buffer as shown in the picture:



It also includes a sensor for the power switch cover.

Use

Touch sensors

The QiSDK API gives us the ability to get a list of all the current touch sensors and the status of each sensor.

Getting all touch sensors

Retrieves the list of available TouchSensors for the robot:

```
Touch touch = qiContext.getTouch();
List<String> sensorNames = touch.getSensorNames();
// All touch sensors on Pepper : ['Head/Touch', 'LHand/Touch', 'RHand/Touch', 'Bumper/FrontLeft', 'Bumper/FrontRight', 'Bumper/Back']
```

reads the touch sensor state

Read the TouchSensor's getState() to read the TouchState state.

```
TouchSensor touchSensor = ...;
TouchState touchState = touchSensor.getState();
```

listens for touch state changes

When the TouchSensor is touched/released, it gets through the TouchSensor.OnStateChangedListener listener:

```
TouchSensor touchSensor = ... ;
touchSensor.addOnStateChangedListener(touchState -> {
    Log.i(TAG, 'Sensor ' + (touchState.getTouched() ? 'touched' : "released") + " at " + touchState.getTime());
});
```

Power switch cover sensor

to get the power switch cover sensor

Pepper robot has a charging cover on its back, when it is switched on for use, all wheel movement will be disabled. For developers, the appropriate interface is provided to get this sensor:

```
Power power = qiContext.getPower();
FlapSensor chargingFlap = power.getChargingFlap();
```

Note: power.chargingFlap will return null if the robot does not have a charging flap.

reads the state of the power switch lid

Use the getState() method of FlapSensor:

```
FlapSensor flapSensor = ... ;
FlapState flapState = flapSensor.getState();
```

listens for state changes in the power switch lid

Listen for power switch cover changes with FlapSensor.OnStateChangedListener:

```
FlapSensor flapSensor = ... ;
flapSensor.addOnStateChangedListener(flapState -> {
    Log.i(TAG, 'Sensor ' + (flapState.getOpen() ? 'open' : "closed") + " at " + flapState.getTime());
});
```

Reference

To learn more about using the TouchSensor class, please refer to:

- How to use and understand [the use of TouchSensor](#)

To learn more about the use of the FlapSensor class, please refer to:

- How to use and understand [the use of FlapSensor](#) and [TimeStamps](#)