



SPHERO WINDOWS SDK

Introduction to the Sphero Pre-release SDK

SPHERO CAPABILITIES

- Drive / Roll Sphero
- Change Color
- Detect:
 - Collisions
 - Attitude
 - Location
 - Quaternion
- (More to come with SDK release)



DISCOVER | CONNECT

```
RobotProvider provider = RobotProvider.GetSharedProvider();  
  
provider.DiscoveredRobotEvent += OnRobotDiscovered;  
provider.NoRobotsEvent += OnNoRobotsEvent;  
provider.ConnectedRobotEvent += OnRobotConnected;  
  
provider.FindRobots();
```



DISCOVER | CONNECT

```
private void OnRobotDiscovered(object sender, Robot robot) {  
    Debug.WriteLine(string.Format("Discovered \"{0}\"", robot.BluetoothName));  
  
    if (m_robot == null) {  
        RobotProvider provider = RobotProvider.GetSharedProvider();  
        provider.ConnectRobot(robot);  
        ...  
    }  
}  
  
private void OnNoRobotsEvent(object sender, EventArgs e) {  
    MessageDialog dialog = new MessageDialog("No Sphero Paired");  
    ...  
}
```



ROLL

```
int heading = 90; // right  
float velocity = .5; // half speed  
m_sphero.Roll(heading, velocity);
```



COLOR CHANGE

```
int red = 0xFF;  
  
int green = 0xFF  
  
int blue = 0xFF  
  
m_robot.SetRGBLED(red, green, blue);
```



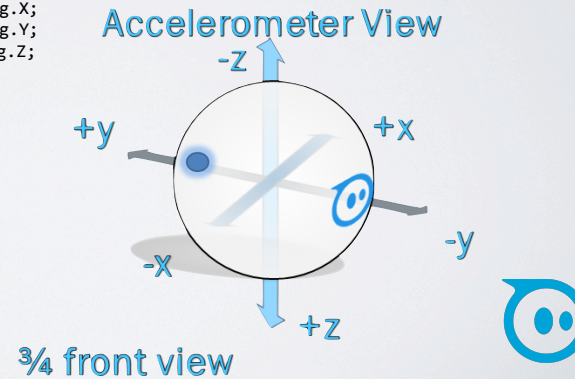
SENSOR STREAMING

Setup

```
m_robot.SensorControl.Hz = 60; // stream at 60Hz for ALL sensors that are enabled  
m_robot.SensorControl.AccelerometerUpdatedEvent += OnAccelerometerUpdated;
```

Data Handler

```
private void OnAccelerometerUpdated(object sender, AccelerometerReading reading) {  
    AccelerometerX.Text = "" + reading.X;  
    AccelerometerY.Text = "" + reading.Y;  
    AccelerometerZ.Text = "" + reading.Z;  
}
```



CHALLENGE

- Works ON
 - Windows 8.1 (RFCOMM)
 - Surface RT
 - Surface Pro

Windows and Partners present: QuickStart Challenge

Visit the QuickStart Challenge at **//build/** to try partners's SDKs to win exciting prizes

To get a head start, learn more about partner services: services.windowsstore.com



**Images are only for reference.

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Windows



INSTALL SDK

- In Visual Studio
- Drag RobotKit dll into the project
- Available at: <https://github.com/orbotix/Sphero-Win-SDK>
- Done.



WINDOWS + SPHERO UNITY PLUGIN

- Coming late Summer 2013

