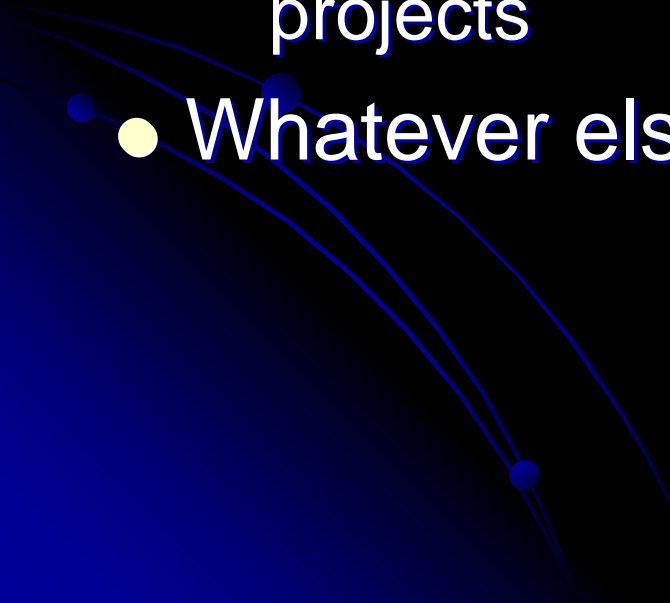


WiMo

The **Windows Mobile Robot**

-Brian Cross

What is WiMo?

- A robot!
 - A not-so-ordinary sample
 - A platform
 - Can be used for your own hobbies and projects
 - Whatever else you want
- 

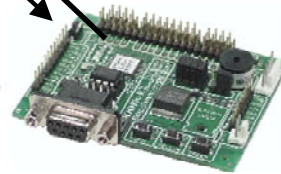


*PC using
Microsoft Robotics Studio*

SMS



*Windows Mobile
Smartphone*

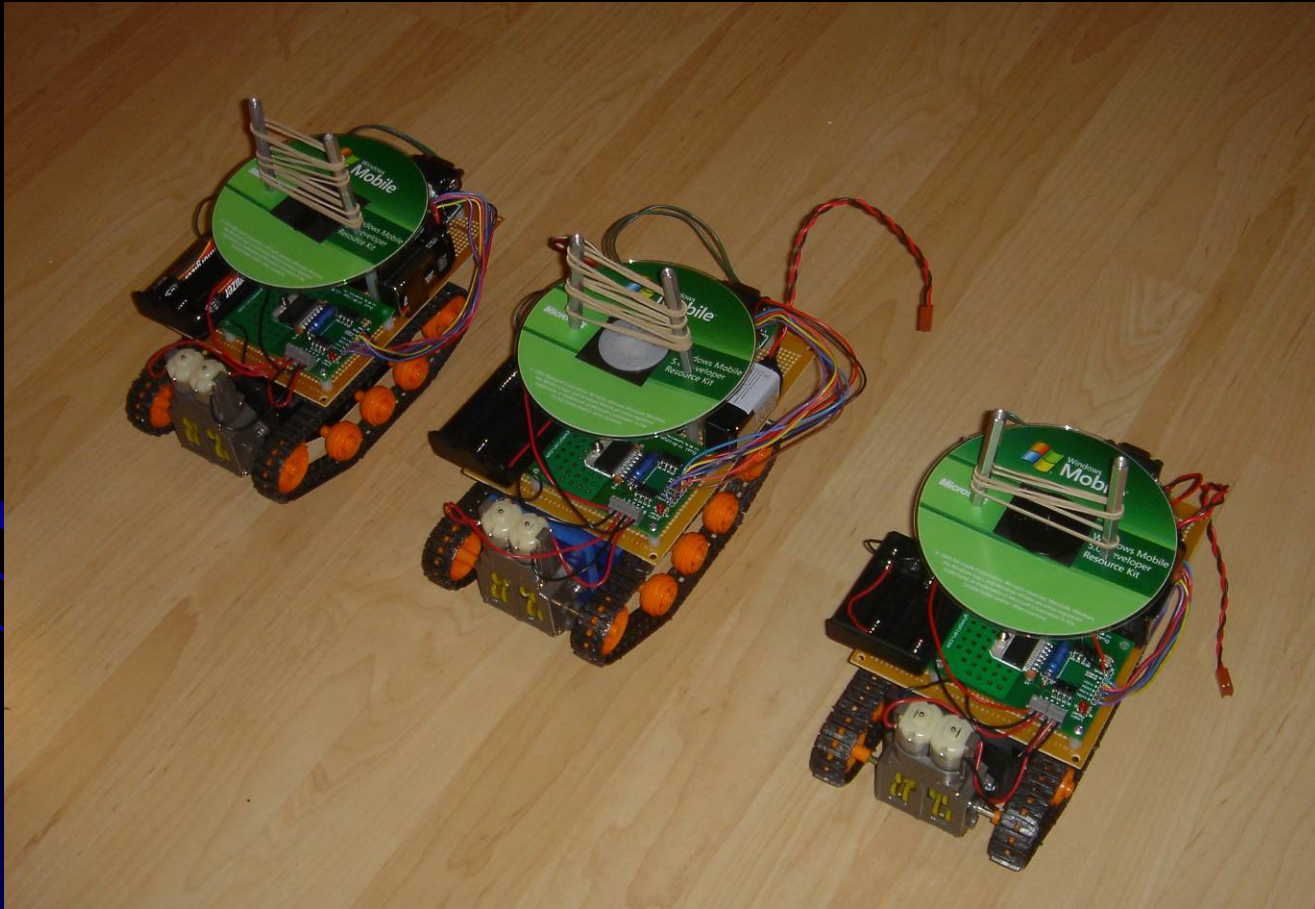


*Microcontroller
(OOPic or NXT)*

Why WiMo?

- I always wanted to build a robot
- I wanted to learn more about hardware
- Show some cool things you can do with Windows Mobile
 - And show how!
- Showcase other Microsoft technologies
 - Microsoft Robotics Studio
 - .Net Micro Framework (soon)

WiMo Demo



Major Hardware Components

- OOPic
 - Bluetooth Module
 - Motor Controller
 - Servo
 - Chassis/Motors
 - Windows Mobile Device
- 

Windows Mobile/CE

Advantages and Features

- Camera
- Connectivity
 - WiFi / TCP
 - Bluetooth / Serial
 - Text Messages
- GPS
- Powerful Processor
- Nice screen
- Small package
- Voice Command (preview)
 - Text-To-Speech (TTS)
 - Voice Recognition

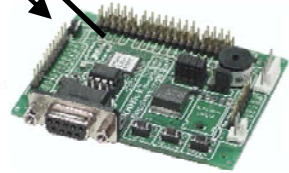


*PC using
Microsoft Robotics Studio*

SMS

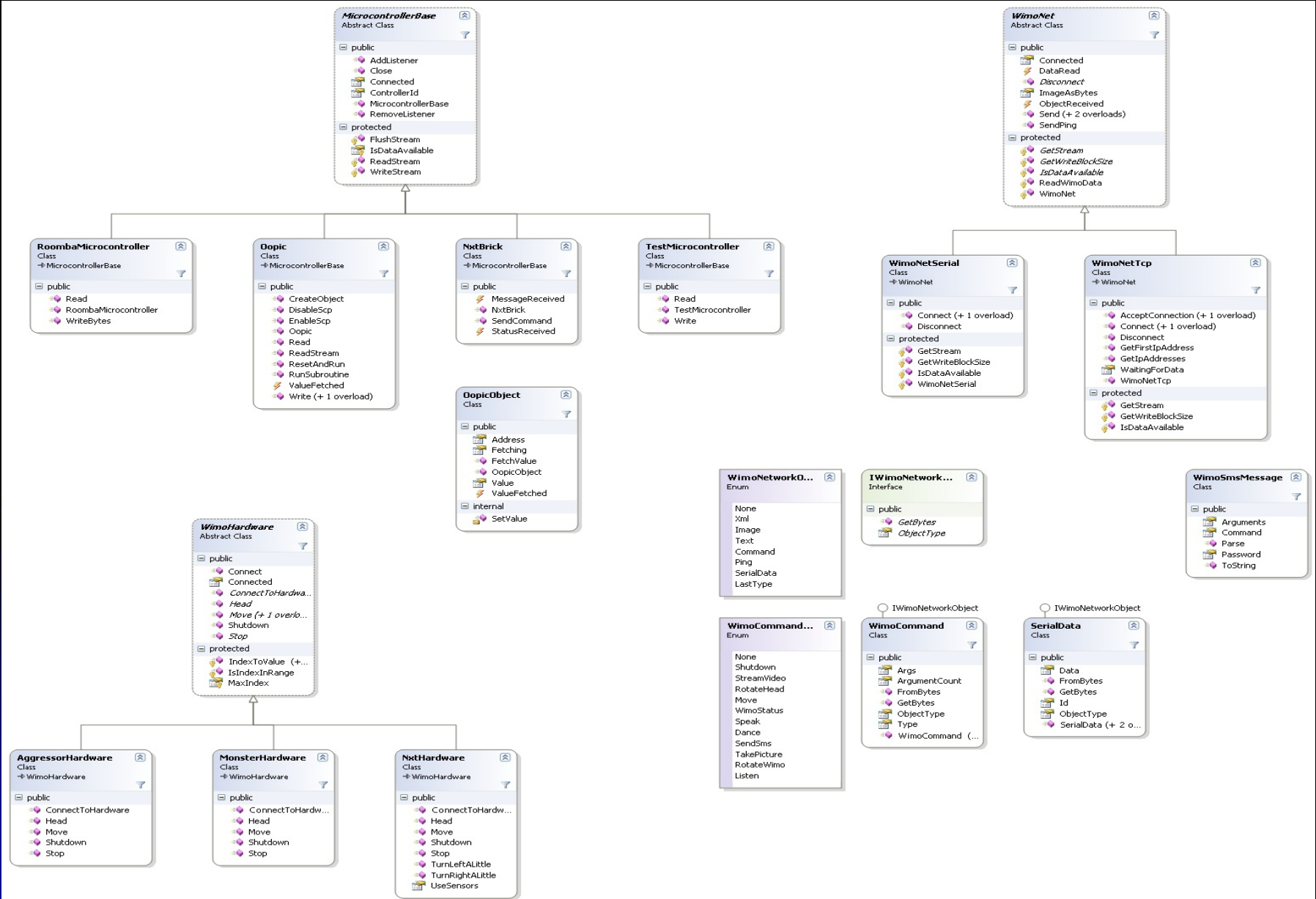


*Windows Mobile
Smartphone*



*Microcontroller
(OOPic or NXT)*

WiMo as a Platform



Microsoft Robotics Studio Services (MSRS)

- WimoComm
 - Communication to WiMo
- WimoDrive
 - Generic Drive Service for WiMo
 - Can use where other MSRS drive systems are used
- WimoPhotoViewer
- WimoUI

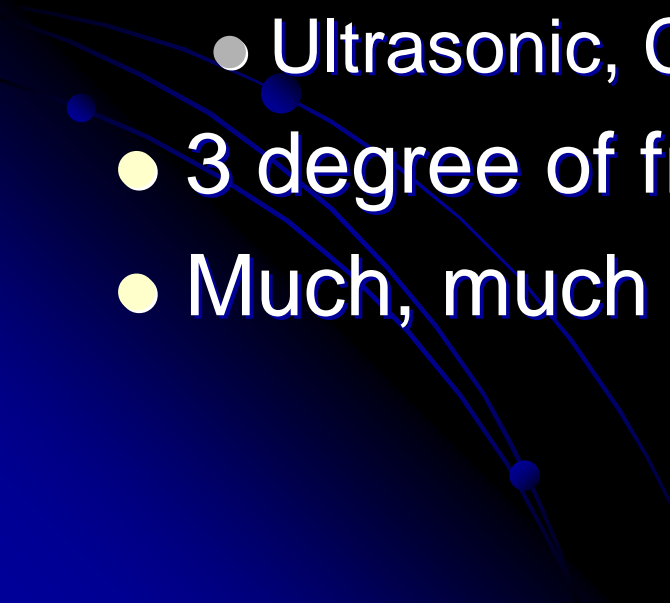
WiMo's Advantages

- Can be as advanced as you like
 - Aggressor
 - NXT
- Education
 - Different hardware platforms
- Inexpensive
 - Legacy Windows Mobile device uses
 - What do you do with an old WM Device?
 - Recycle/Reuse
 - Cheap!
- Off-the-shelf parts
- Can focus on software

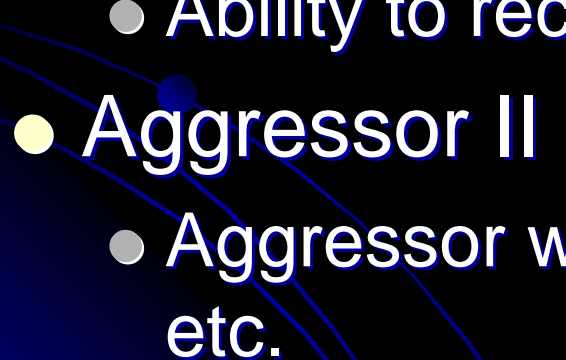
Wimobot.com

- Recommended Books
- Parts list
- Step-by-Step Building Instructions
 - Aggressor
 - NXT
- Source code
- Photos, videos, and up-to-date information
- Email
- Community
 - Blog
 - Other Wimos
 - MIT

TODO List

- Direct3D interface
 - Faster Video
 - Camera as sensor
 - More sensors
 - Ultrasonic, Compass, etc
 - 3 degree of freedom arm
 - Much, much more!
- 

Future Wimos

- **Monster WiMo**
 - Ability to go over various terrain
 - Course navigation at Marymoor Park
 - **ICreate WiMo**
 - Ability to recharge
 - **Aggressor II**
 - Aggressor with sensors, 360 degree servo, etc.
- 

Reference

- <http://www.wimobot.com>
 - Videos (linked)
 - Channel 9
 - LEGO's Big Robot on Campus
- Email me! (wimo@wimobot.com)
- Major updates get blogged on the Windows Mobile Team Blog:
<http://blogs.msdn.com/windowsmobile>
and on the wimobot site.

Questions?

