User manual for Object Picking Robot

☐ **Charging the Robot:**

This robot-arm ON-OFF switch should remain OFF when the robot is OFF. Because, this contantly consumes power.

OFF:

ON:

Robot ON-OFF switch

+ Adapter black wire

− Adapter white wire

+ −   + −

Black wire

White wire

Black wire

White wire

Adapter

+ve

-ve

4.5V   6V

3V   9V

12V

Adapter

+ve

-ve

4.5V   6V

3V   9V

12V
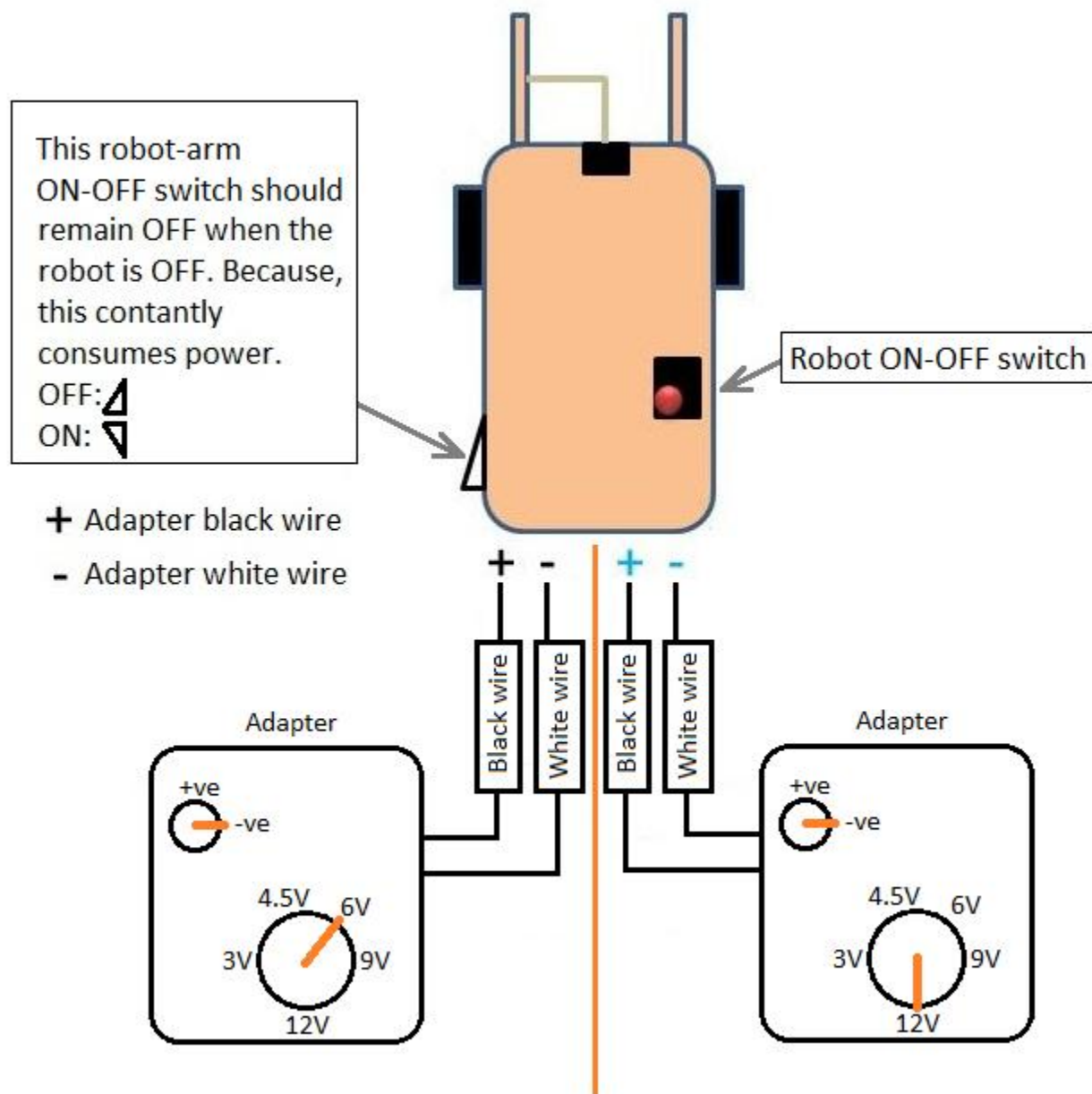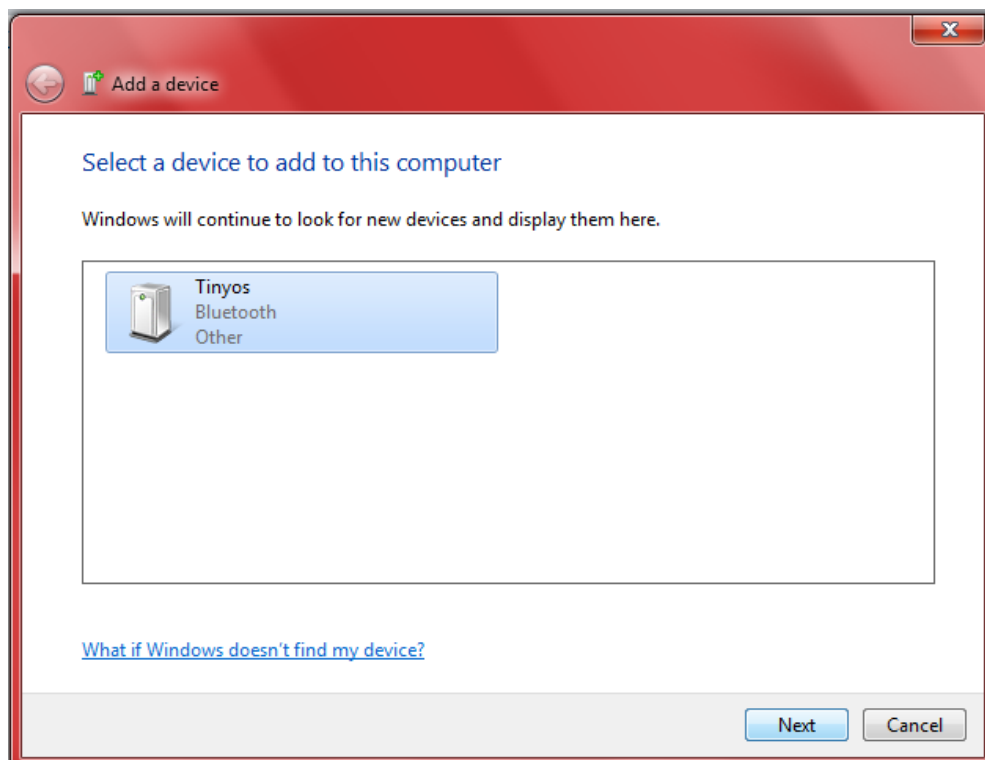
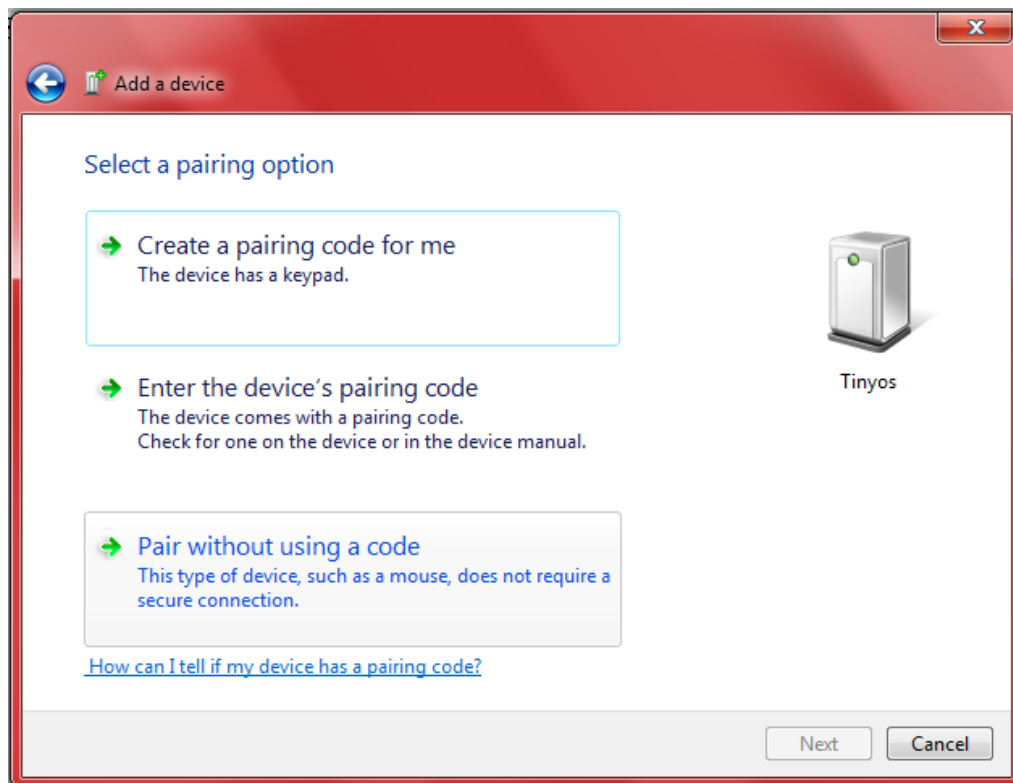## □ Connecting bluetooh device:

1. Turn **ON** the Robot.
2. Connect your **Bluetooth dongle** to your computer's USB port.
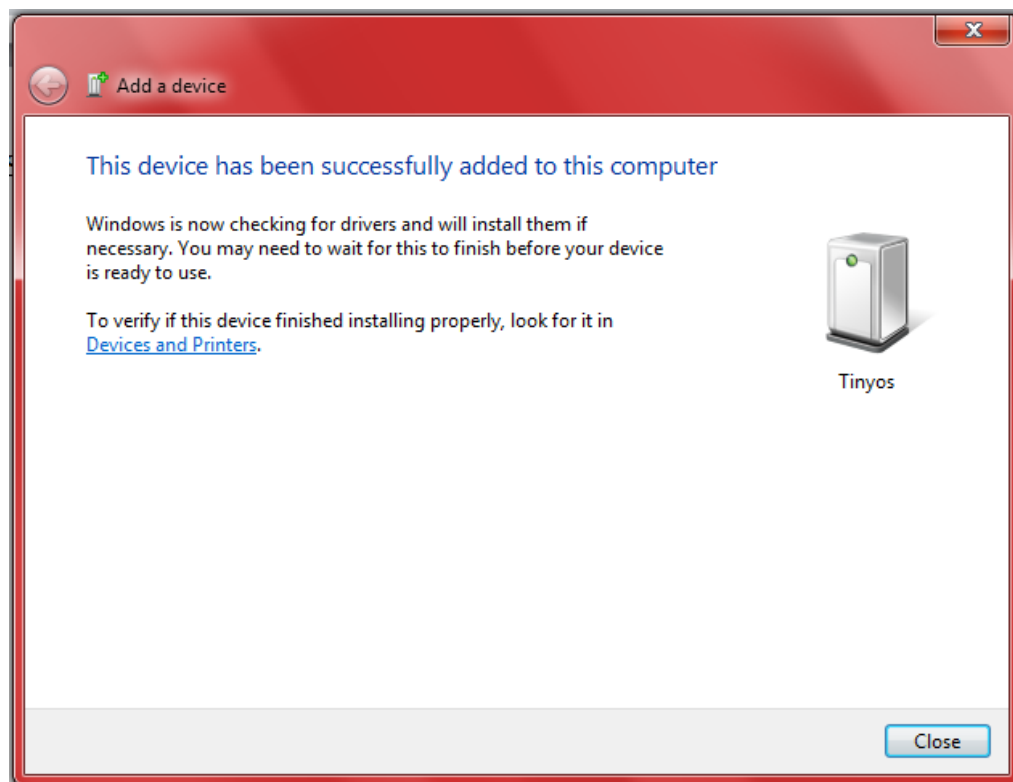3. Select **Bluetooth Devices >> Add a device** from your taskbar.
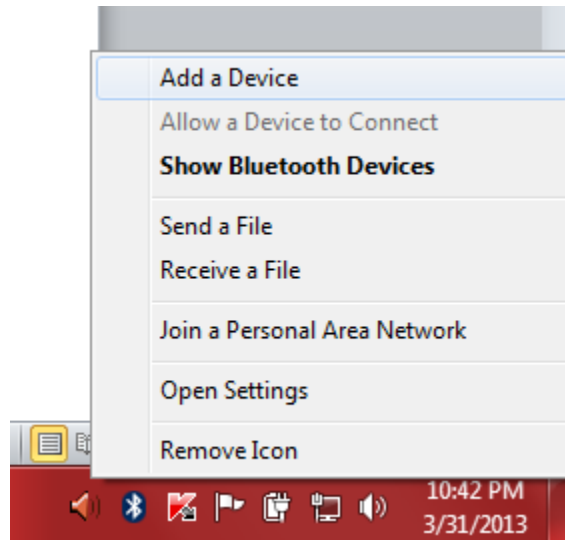
4. Select **Tinyos** and click **Next**.
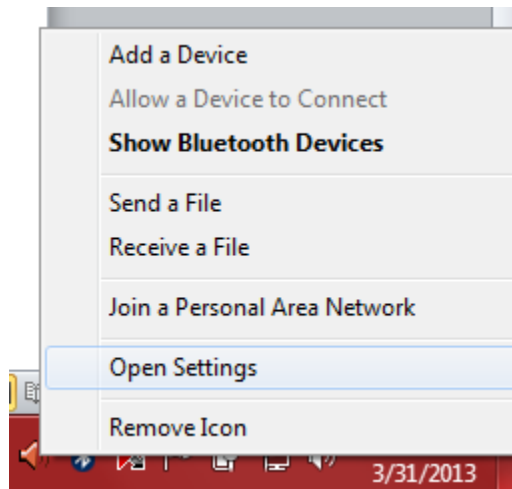
5. Select **Pair without using a code**.

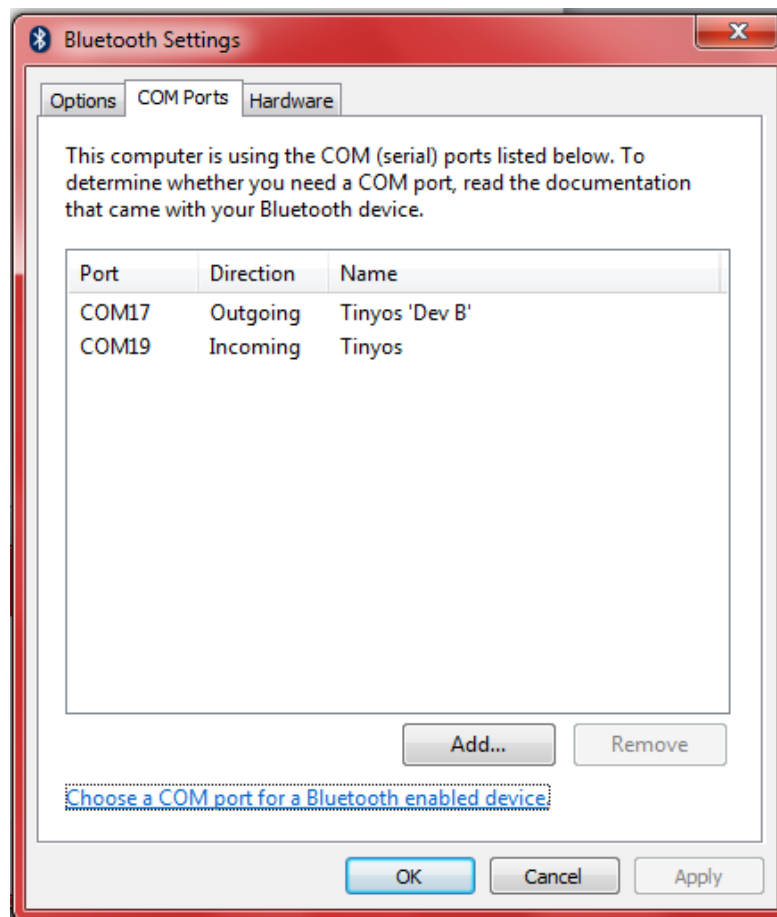6. The Bluetooth device will be added successfully. Click **Close**.

☐ Serial port checking & configuring:

1. Select **Bluetooth Devices >> Open Settings** from your taskbar.

2. There will be 2 COM ports: **Outgoing** & **Incoming**. We need only **Outgoing port**, which is here **COM17**.

3. Open **Robot >> src >> robot >> comm.txt** and write outgoing port **COM**** there without any new line character. For here, outgoing port is **COM17**.

□ Installing RxTx before running the Program:

1. Copy both **rxtxSerial.dll** and **rxtxParallell.dll** to:

   C:\Program Files\Java\jdk1.6.0_03\jre\bin
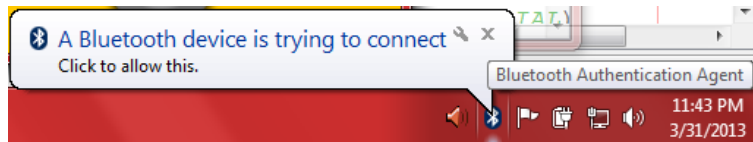   **C:\Program Files\Java\jre1.6.0_03\bin**

2. Copy **RXTXcomm.jar** to:

   C:\Program Files\Java\jdk1.6.0_03\jre\lib\ext
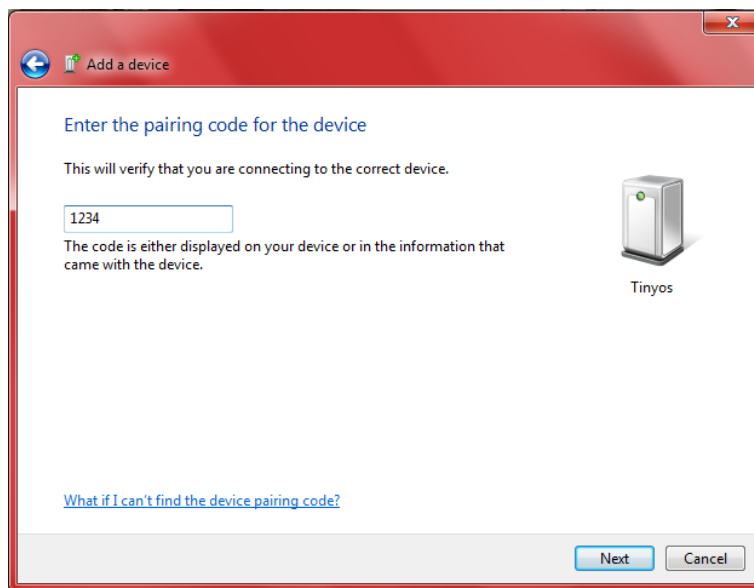   **C:\Program Files\Java\jre1.6.0_03\lib\ext**
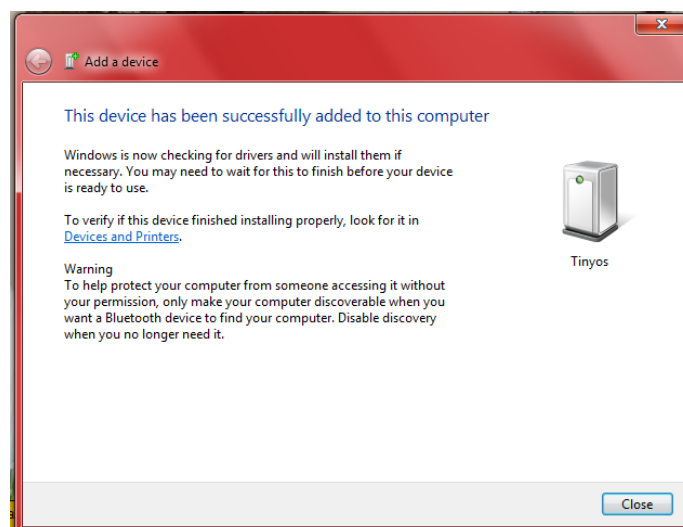
□ Program running:

1. Turn **ON** the Robot.
2. Copy "**Object picking robot**" folder to "**F:**" drive.
3. Open "**Robot**" project in **NetBeans**.
4. Click "**Clean and Build Project**", then "**Run Project**".
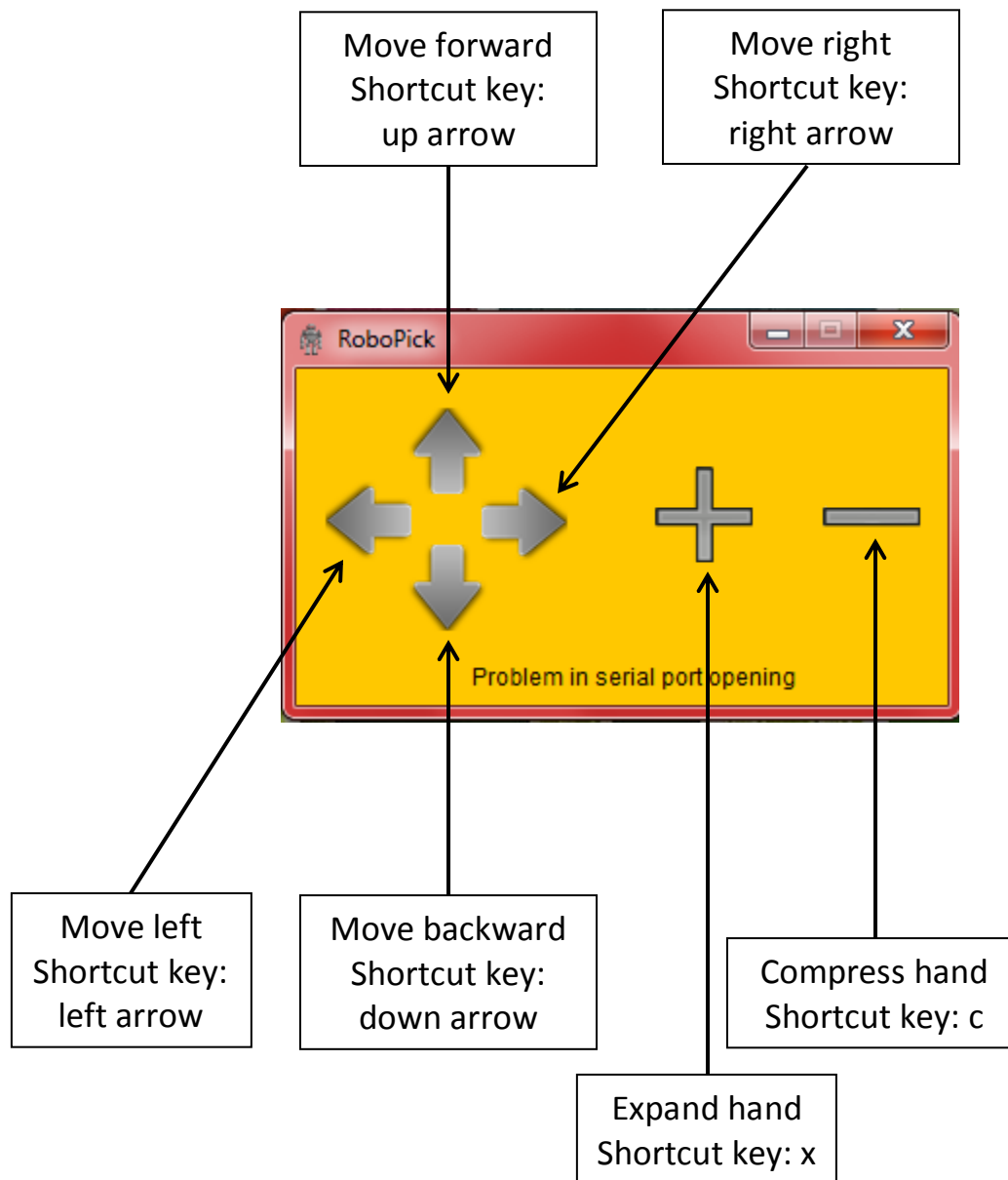5. Click on the **Bluetooth Devices notification icon** on taskbar.

6. Type **1234** as pairing code and Click **Next**.


7. Click **Close**.

☐ Program commands & operations:

Move forward
Shortcut key:
up arrow

Move right
Shortcut key:
right arrow

RoboPick

Problem in serial port opening

Move left
Shortcut key:
left arrow

Move backward
Shortcut key:
down arrow

Compress hand
Shortcut key: c

Expand hand
Shortcut key: x

□ Bluetooth Webcam running:

1. Start **SmartCam** on your computer. Then minimize it to the taskbar.

2. Start **SmartCam** on your Android mobile.

3. Goto **Settings>>Bluetooth server** and then select your desired bluetooth server.

4. Select **Connect bluetooth**.

5. Type **1234** as device's required PIN and select **OK**.

6. Now, on your computer, click on the **Bluetooth Devices notification icon** on taskbar.
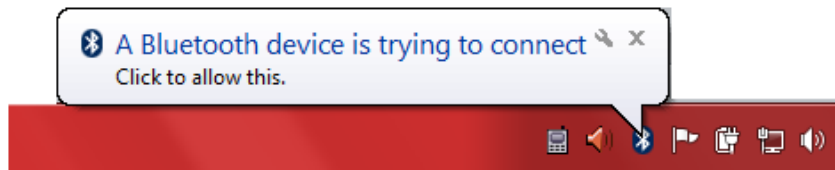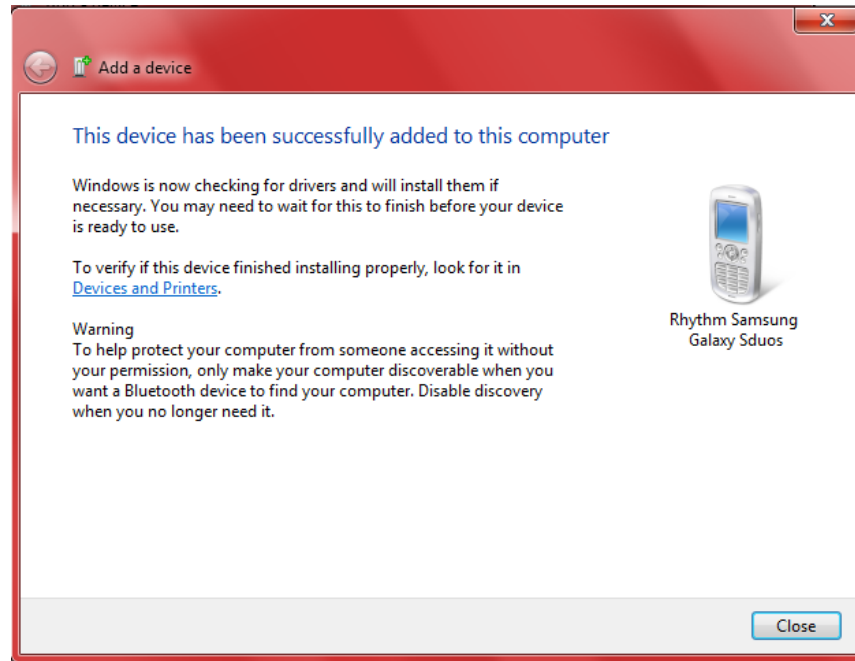

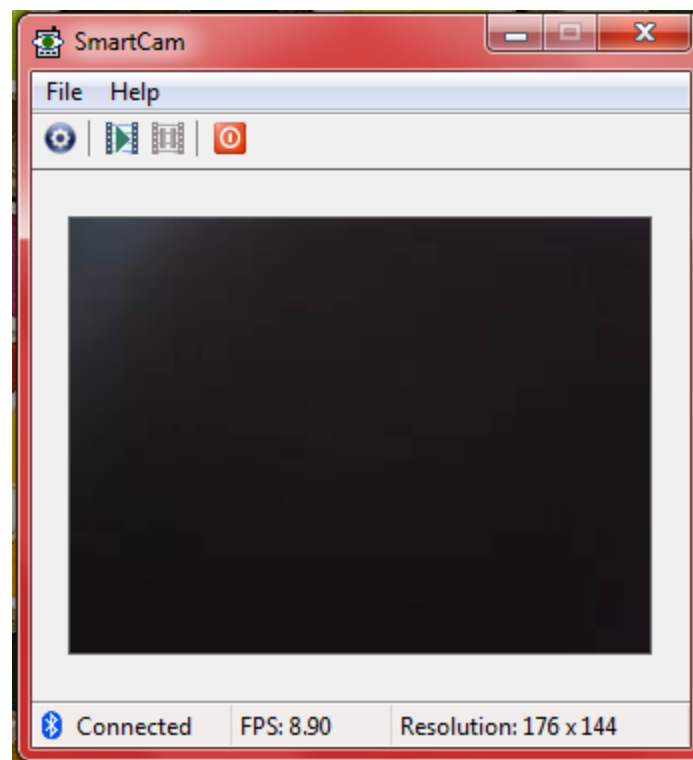7. Type **1234** as device pairing code and select **Next**.
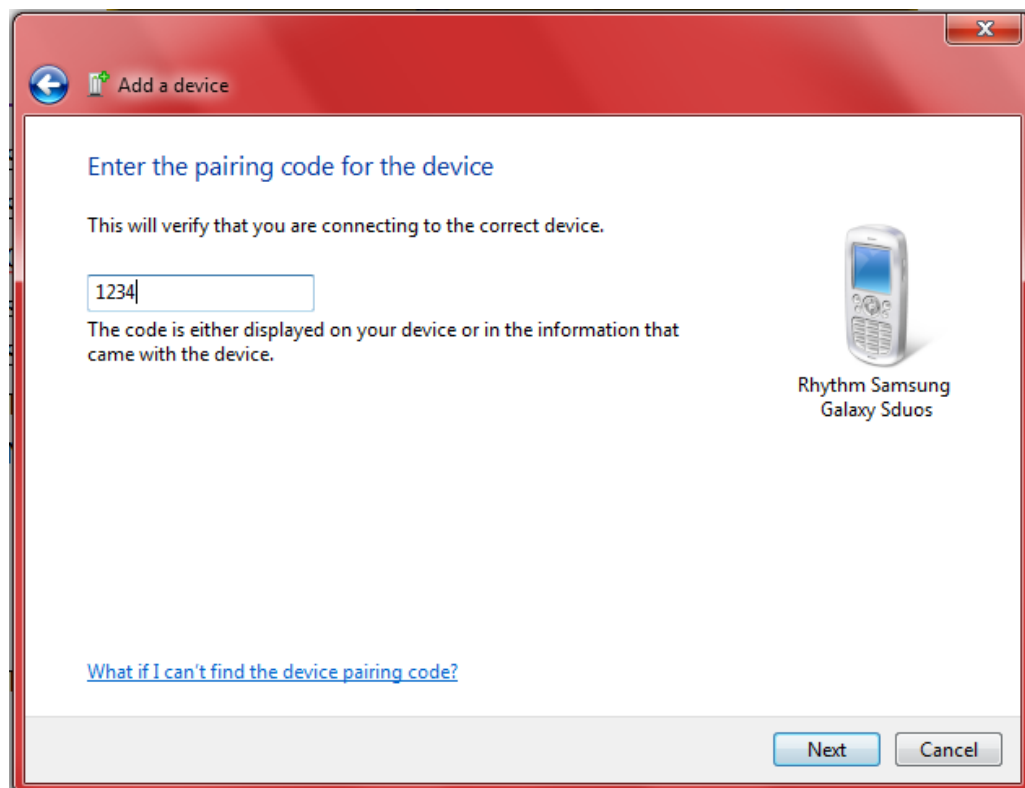
8. The device will be successfully added. Click on **Close**.

9. Finally, double click on the **SmartCam** icon on taskbar to maximize it. You'll be able to see the video.

DONE !