**Use PICAXE Editor 6 to simulate a microcontroller automation with CONNECT I/O and HOME I/O**

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# Introduction

PICAXE Editor 6 (download at http://www.picaxe.com/Software/PICAXE/PICAXE-Editor-6/) is a friendly Integrated Development Environment (IDE) which is well suited for learning programming and automation theories. Indeed, this IDE is easy to use and provides flow chart based graphical programming so that it improves understanding of programming and automation skills.

This document shows how to connect PICAXE Editor 6 with the application CONNECT I/O in order to simulate the control part of a controller (in our case the AutoProg PIC28X2 from A4) and use it with operating parts simulation provided by HOME I/O.

# Operating principle

Operation is based on the use of Asynchronous Pipe technology between CONNECT I/O and PICAXE Editor 6. That pipe is a kind of bridge which allows communication among those 2 components provided they are executed on the same computer.

The connection is based on the client server model. PICAXE Editor 6 represents the server and waits for an incoming connection with a client i.e. CONNECT I/O. At this point, the client sends the state of its inputs permanently and receives in the same way the state of its output ports updated by PICAXE Editor 6. All that processing is done within the integrated CONNECT I/O plugin: “PICAXE\_Editor\_6\_Plugin.dll”

# Example of use

1. Copy {“RealGames\_ConnectIO.xml”, “ConnectIO.ico”} into “PlugIns” directory of PICAXE Editor. *(e.g. C:\Program Files (x86)\Revolution Education\PICAXE Editor\PlugIns)*

2. Copy “PICAXE\_Editor\_6\_Plugin.dll” into Plugins directory of CONNECT I/O. *(e.g. C:\Program Files (x86)\Real Games\Connect IO\Plugins\)*

3. Copy “SlidingGate\_2014\_12\_17\_17\_47\_50.xml” into saves directory of HOME I/O *(e.g. C:\Users\Riera\Documents\Home IO\Saves)*

4. Open “SlidingGate.plf”.

5 On PICAXE Editor 6, Click: Connect >> Connect to software Simulation >>RealGames\_ConnectIO. *(it is waiting for an incoming connection)*

6. Launch HOME I/O, and open “SlidingGate\_2014\_12\_17\_17\_47\_50.xml”.

7. Launch CONNECT I/O and open “SlidingGate.CONNECTIO”. *(Server and client are now connected)*

8. Click start on PICAXE Editor 6 to start the simulation of PICAXE program.

9. Press the button #1 on the remote control, notice the behavior of the sliding gate.





