Coding Blocks

Learn programming with blocks and a puppet

- Most of the textual programming languages are based on the English language, and they have strict syntax requirements, so elementary school students face many difficulties when using them.
- To overcome these challenges, we suggest using a simple visual programming language for programming an interactive puppet, using an ESP32 controller and MicroPython firmware.
- By using the Google Blockly library with the BIPES platform, the student programs the puppet on the browser, requiring only access to the internet.
- Such a puppet can be used for teaching both the concepts of algorithmic thinking and the basics of programming in Python.

System diagram. This diagram shows the components of the system and the connections between them.

Wiring diagram. This diagram shows the cables connecting the different components to the ESP32 microcontroller (ground cables are not shown).

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A Project in Internet of Things (IoT)