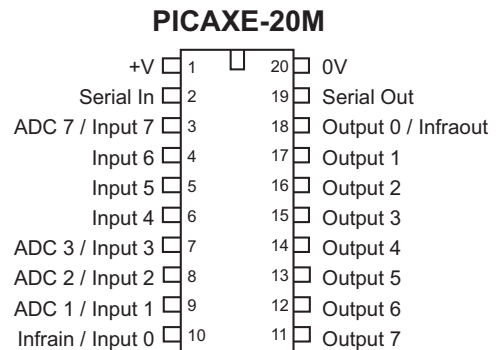


AXE118 PICAXE-20M PROJECT BOARD KIT

Contents:

- PCB AXE118 Project board PCB
- R1 10k resistor (brown black orange gold)
- RPU/RPD 10k resistor (brown black orange gold)
- R2 22k resistor (red red orange gold)
- RA1 7x10k 8pin resistor array (common is by dot)
- C1 100nF polyester capacitor
- CT1 stereo download socket
- BC Battery Clip
- IC1 20 pin IC socket
- IC2 18 pin IC socket
- IC2 ULN2803A darlington driver



Description:

The PICAXE-20M project board provides a rapid development system for the PICAXE-20M microcontroller system. It provides the basic download circuit, connection points for inputs / outputs, and an optional darlington driver buffered output circuit (i.e. each output is buffered by the ULN2803A darlington driver).

Instructions:

1. Assembly notes:

Input 0 can be optionally pulled high (use 10k resistor in position RPU) or pulled low (use the resistor in position RPD). Only fit one of the two positions.

The SIL resistor provides a 10k pull-down to all the other inputs. It is polarised, the end marked with a dot must be at the top of the board.

The PICAXE requires a 4.5V supply which is connected via the battery clip pads at the bottom of the PCB. Note the battery clip can be threaded through the board prior to soldering to generate a stronger joint.

The ULN2803A output driver can use its own separate power supply (connected top right) or the same supply as the PICAXE chip. To use the same supply a wire link must be soldered in the position LK1.

2. Insert a PICAXE-20M microcontroller (purchased separately). ONLY USE A 4.5V or 5V battery pack, not a 9V PP3 battery, as the power supply.
3. Note that the outputs on the right of the board are buffered by the darlington driver chip. They are therefore 'open collector' outputs (outputs are connected between V+ and the output, not 0V and the output).
4. Use the Programming Editor software to develop a control program, and then download the program to the board by connecting the PICAXE download cable (part AXE026 or AXE027).

Option 1 - Direct Input/ Output Connection:

Some output devices (e.g. Serial LCD) require a direct connection to the PICAXE output (rather than the darlington driver buffered output). Each input / output of the PICAXE chip has a direct connection pad directly beside the leg of the chip. The pad marked PZ is designed for connecting a piezo sounder and connects directly to output 1.

Circuit Diagram

