

MUSICAL MODULE EDU-021 WITH SPEAKER PICAXE 08M

Description

This module consists of a PICAXE-08M microcontroller that can control a speaker. A switch and a potentiometer allow alter the behavior of the program loaded in the microcontroller.

Provides an excellent learning materials, particularly for initiation into the use of the PICAXE microcontrollers and programmable electronics in general

Programming Software Download

In <http://www.picaxe.com> web site under the software section, find the latest free version of the environment Programming the crocontroller. The software is translated into several languages, (change the option in the Options section).

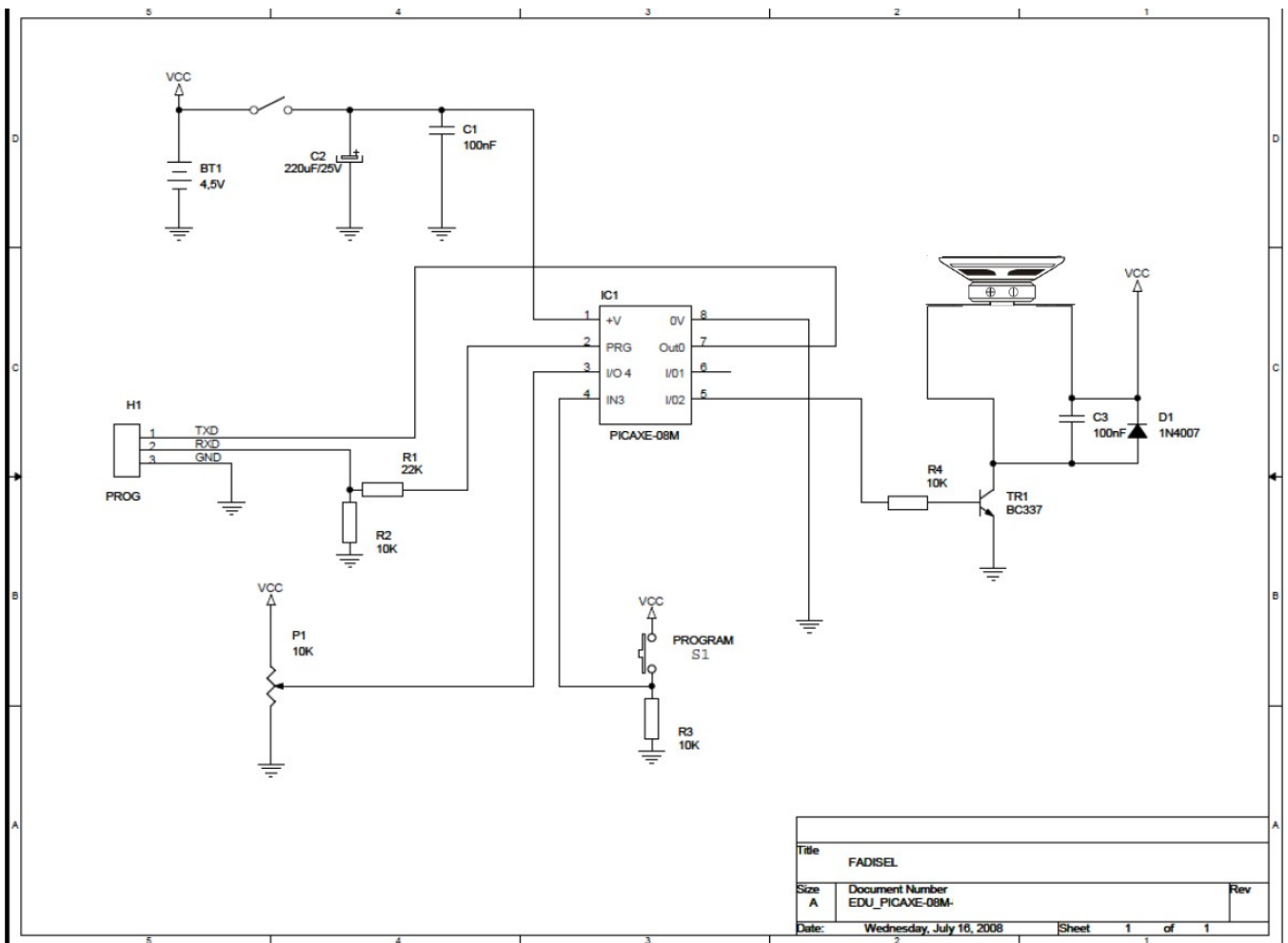
Alimentation

The module includes a battery holder for 3 AA batteries. You can use rechargeable batteries.

Computer Connection

EDU-need a cable to program PICAXE-USB module from the computer. Remember to in paragraph Options programming environment, the serial port connecting cable.

Wiring diagram



Programming Module

The programming environment allows you to work both in BASIC as flowcharts. Remember to select Options PICAXE-08M microcontroller.

Once designed the monitoring program (later found several examples of behavior of the module), connect the module to the computer with the programming cable and turn on the module
In the programming environment, click Run (blue triangle in the icon bar). After a while you will receive an compliance.
Now if you want to disconnect the programming cable. The program will be stored in the module even if it goes out, until replaced by a new program

Sample programs Picaxe music:

main:

```
while you have the power on reproducing the sound of a siren
main:
sound 2,(75,100)
sound 2,(100,100)
goto main
```

Musical melody

```
while you have the power on play the melody
main:
sound 2, (100,50,80,50,120,50)
goto main
```

Ringer switch operated

```
press the button to play a tone
main:
label_14:      if = 1 then label_2B pin3
               goto label_14
label_2B:
               sound 2 (100.50)
               goto label_14
goto main
```

Musical scale generator

```
While the power is anger has played a musical scale
10 tones
main:
for b0 = 1 to 10
b1 = b0 * 10
sound 2 (b1, 100)
next b0
goto main
```

Tone controlled potentiometer

```
Moving the potentiometer varying the frequency anger tone
main:
readadc 4, b0
sound 2, (b0, 100)
goto main
```

Technical Characteristics

tickets available
potentiometer connected to pin 3 / 4 IN AD
button connected to pin 4 / IN 3
piezoelectric speaker outputs connected to pin 5 / PWM
Switch has ON / OFF desconetar batteries, to avoid using the batteries when not working, so as to removed or placed to allow the micro with absolute certainty
Power circuit
3 R 6-cell batteries

IMPORTANT. Never remove or insert the PICAXE with the power would damage

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