



Capabilities

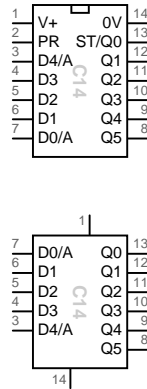
The following table outlines the capabilities of this GENIE device:

Type	CORE
Version	1
Signals	
Pins	14
Analogue inputs	2
ADC resolution	8 bits
Digital inputs	5
Digital outputs	6
Features	
Parallel processing	Yes
Plug and play	Yes
Debug live	Yes
Device control	Yes
Sensor calibration	Yes
RTTTL music	Yes
16 channel MIDI music	No
Sound effects	No
PWM outputs	1
Servo motor control	0
Infra-red control	Yes
1-Wire® and I2C	No
Ultrasonic sensing	No
Events and interrupts	Yes
1-second clock	Yes
Programming	
Program memory	256 bytes
Variables	10 (A-J)
Data (array) memory	0
EEPROM locations	16
Program start limit	2
Subroutine limit	No limit
Call stack limit	16
Electrical	
PICmicro® device	16F684
Power supply	2.1-5.5V
Pin current limit	25mA
Total current limit	90mA

Component

Note: This is a older (v1) GENIE microcontroller, which has been replaced the the more powerful v2 GENIE 14 device.

The GENIE C14 microcontroller has 14 legs (known as pins) and these are used as follows (a simplified view is also shown):



Pin	Description
1	Power supply voltage (2.1-5.5V only)
2	Programming input (PR)
3	Analogue input A4 or digital input D4
4	Digital input D3
5	Digital input D2
6	Digital input D1
7	Analogue input A0 or digital input D0
8	Digital output Q5
9	Digital output Q4
10	Digital output Q3
11	Digital output Q2
12	Digital output Q1
13	Digital output Q0 and Status output (ST)
14	Ground (zero volt) supply voltage

The required circuit for a GENIE C14 is shown below. It includes a download socket and two resistors.

