PhidgetIR

Note: The 1055_0B is identical to the 1055_0, except that you have the option of whether you want to include the USB cable.

You can use the PhidgetIR to control devices with remote control input – such as your TV or Blu-ray player, from your computer by having the PhidgetIR transmit remote control codes. Your application can learn the signals from arbitrary remote controls. The learned code can be retransmitted and will function just as if you were pushing the same button on the actual remote. You can also control your computer or Phidgets by recognizing a signal from any remote and using it as an event in your application to trigger some action.

The PhidgetIR can send and receive data encoded in various fashions as pulses of infrared light. The various encoding that the PhidgetIR supports are grouped under the general term вЂ˜Consumer IRвЂ™ or CIR. CIR is generally used to control consumer products such as TVs, Blu-ray players, or speaker systems. with a wireless remote control, but in general can be used for any application that needs to transmit low speed data wirelessly.

CIR is a low speed protocol – commands generally contain no more then 32-bits of data with a bit rate of at the most 4000 bits/second, but usually much less. There is no concession for anti-collision, so only one code can be transmitting at any time. Transmission distance depends on the power of the transmitter, but needs to be line of sight – though generally this can include bouncing off of walls and ceilings.

CIR data is transmitted using a modulated bit stream. Data is encoded in the length of the pulses / spaces between pulses, of IR light. The pulses of IR light are themselves modulated at a much higher frequency (usually ~38kHz) in order for the receiver to distinguish CIR data from ambient room light.

Comes packaged with

- A Hardware mounting kit (4 nuts and bolts (M3), 4 plastic spacers)

Product Specifications

Board	
Controlled By	USB (Mini-USB)
API Object Name	IR
Bit Rate Max	2 kbit/s
Update Rate	125 samples/s
Code Length Max	128 bit
Pulse/Space Width Max	300 ms
Gap Length Min	20 ms
Gap Length Max	100 ms
Timing Resolution	10 Ojs
USB Speed	Full Speed
Transmitter	
Carrier Frequency Min (Transmitter)	10 kHz
Carrier Frequency Max (Transmitter)	1 MHz
Infrared Wavelength	950 nm
Directivity (Transmitter)	B± 25B°
Receiver	
Carrier Frequency (Receiver)	38 kHz

Peak Sensitivity Wavelength	950 nm
Reception Distance Max	18 m
36/40 kHz Reception Sensitivity Loss	40 %
Directivity (Receiver)	B± 45B°
Electrical Properties	
Current Consumption Max	50 mA
USB Voltage Min	4.5 V DC
USB Voltage Max	5.5 V DC
Physical Properties	
Operating Temperature Min	0 B°C
Operating Temperature Max	70 B°C