

# PICAXE INFRA-RED REMOTE CONTROL UPGRADE

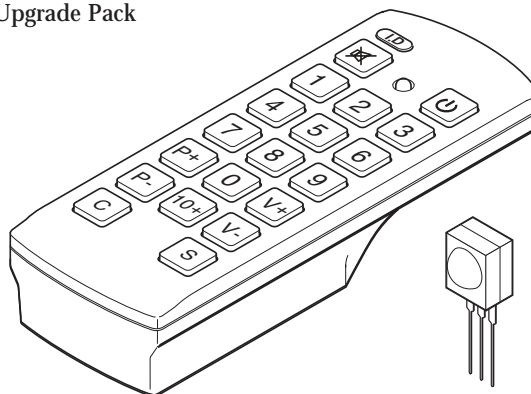
## Order Codes:

AXE040      PICAXE IR Remote Control Upgrade Pack

## Contents:

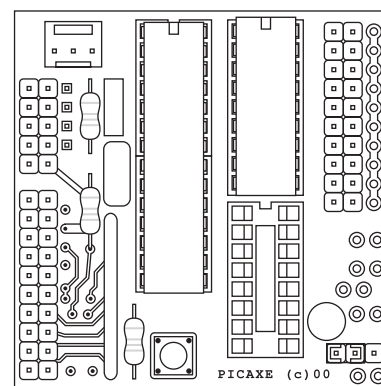
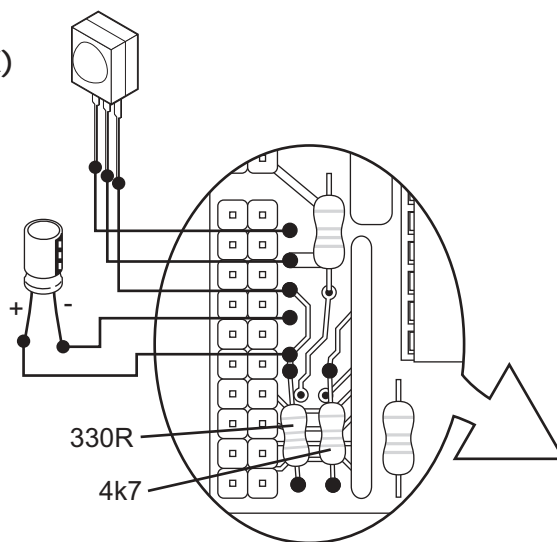
- Infra-red remote transmitter\*
- Infra-red remote control receiver
- 330R resistor (orange orange brown gold)
- 4k7 resistor (yellow violet red gold)
- 4.7uF capacitor

\*requires 3x AAA batteries (not supplied)



## Instructions (PICAXE-28A/X)

Solder the components in position as shown in the diagram below. The infrared receiver can be soldered directly to the board or connected via wires. It is recommended that the receiver is left on 'long-legs' so that it can be laid back over the PICAXE microcontroller to avoid fouling the inputs cable.



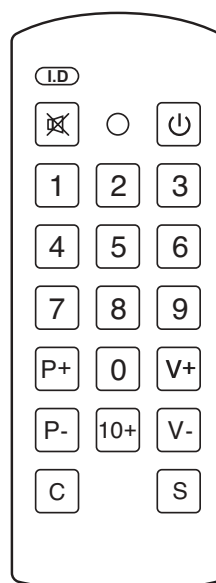
## Instructions (PICAXE-18A/X)

The circuit shown overleaf can be connected to input0 on the CHI030 standard or CHI035 high power project boards, or V5 (or later) of the MOD001 buggy. It can also be build on your own circuit board.

## Programming the transmitter

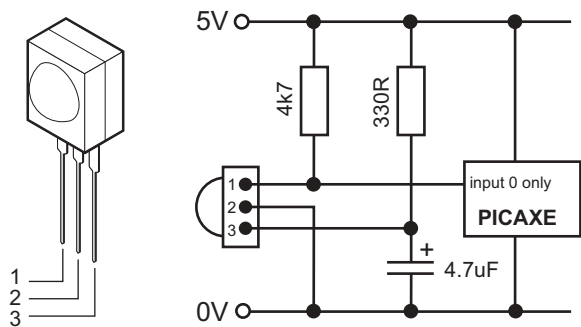
Before use, the transmitter must be programmed with 'Sony' codes as follows:

1. Insert 3 AAA size batteries, preferably alkaline.
2. Press 'C'. The LED should light.
3. Press '2'. The LED should flash.
4. Press '1'. The LED should flash.
5. Press '2'. The LED should flash and then go out.



Circuit

The infrared circuit and a sample program is shown below (Receiver is part LED020):



(NB with PICAXE-08M input3 must be used instead of input0)

```
loop:
    infrain                'wait for new signal
    if infra = 1 then swon1 'switch on 1
    if infra = 2 then swon2 'switch on 2
    if infra = 3 then swon3 'switch on 3
    if infra = 4 then swoff1 'switch off 1
    if infra = 5 then swoff2 'switch off 2
    if infra = 6 then swoff3 'switch off 3
    goto loop

swon1:  high 1
        goto loop
swon2:  high 2
        goto loop
swon3:  high 3
        goto loop
swoff1: low 1
        goto loop
swoff2: low 2
        goto loop
swoff3: low 3
        goto loop
```

Key	Value
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
P+	10
0	11
V+	12
P-	13
10+	14
V-	15
Mute	16
Power	17

The keys on the infrared-transmitter generate the following values in the PICAXE microcontroller.