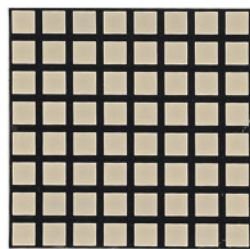
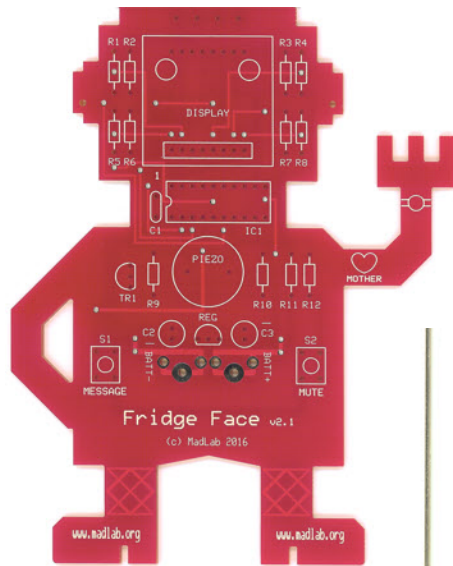
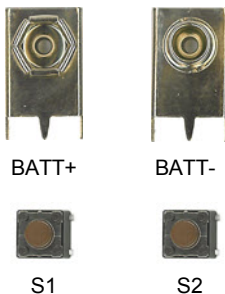
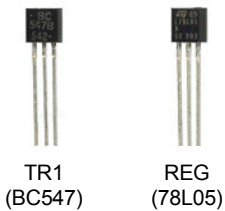
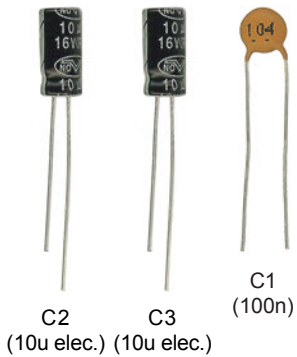
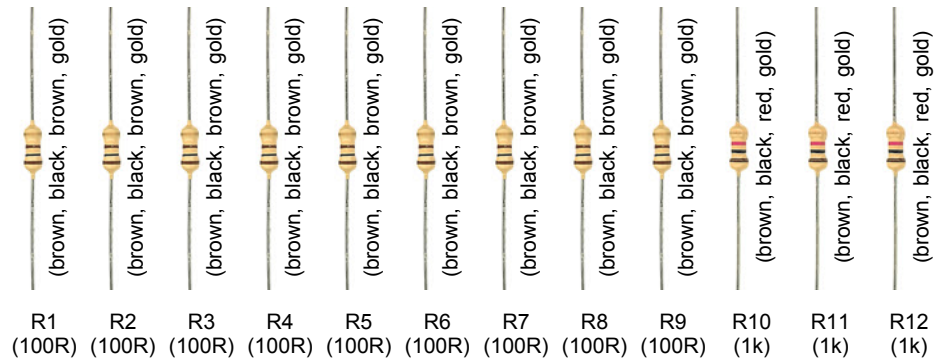


# FRIDGE FACE

a little robot who takes your messages



- 1 Identify the different components using the spotter chart.
- 2 Fit and solder all the resistors (R1 to R12) to the circuit board. Identify the resistors by the coloured stripes on the body. They can be fitted either way around.
- 3 Solder the chip socket (IC1) matching the notch in the socket to the notch on the board. **Do not solder the chip directly to the board.**
- 4 Solder the electrolytic capacitors (C2 and C3) within the circles putting the shorter leg into the hole with the - sign. The shorter leg also has a stripe on the side of the body. Solder the other capacitor (C1) either way around.
- 5 Solder the transistor (TR1) matching the half-circle shape of the transistor to the half-circle shape on the board. Be careful not to mistake the regulator for the transistor.
- 6 Solder the regulator (REG) matching the half-circle shape of the regulator to the half-circle shape on the board.
- 7 Solder the pushbuttons (S1 and S2) either way around.
- 8 Solder the piezo (PIEZO) to the board either way around.
- 9 Solder the display (DISPLAY) to the board matching the small digit 1 at one corner of the display to '1' on the board. If pin 1 is not marked on the display then the part number written on one side indicates the location of pin 1. Double check this before soldering.
- 10 Bend the wire into a suitable antenna shape then solder it to the top of the head.
- 11 Fit the battery connectors (BATT+ and BATT-) to the **back of the board** matching the shape to the symbol on the board (the hexagonal connector is positive, the circular negative). Ensure the connectors are pushed fully into the board and are at right angles to it. Solder the connectors to the **front side** of the board making sure all the holes are well filled with solder.
- 12 Carefully bend the legs of the chip inwards a little with your fingers. Fit the chip into its socket matching the small notch in the chip to the notch in the socket.
- 13 Connect a battery (**9V PP3**) to the battery connectors. If *Fridge Face* is working properly all the LEDs should flash and it should beep twice.
- 14 Remove the plastic film from the LED display and stick the two magnets to the back of the battery. The magnets are strong enough to hold *Fridge Face* to the side of a fridge.

## HOW TO USE FRIDGE FACE

*Fridge Face* is a gadget with a personality that can store and display messages for people. If a message has been left *Fridge Face* will periodically speak to attract attention then display the message. The left pushbutton (S1) also displays the message.

To enter your message, first hold down both pushbuttons for about 2 seconds. *Fridge Face* will beep twice to indicate it is in message mode.

You can use the letters A to Z and the space character in your message, as well as the digits 0 to 9 and some punctuation characters.

You enter your message using the two pushbuttons to select the individual characters that make up the message. The idea is to go through the letters in the alphabet until you reach the one you want. Pressing the right pushbutton moves you forward one position in the alphabet (for example from B to C). Pressing the left pushbutton moves you back one position in the alphabet (from F to E for example). You start from the space character, which is followed by the letter A (and preceded by the digit 9).

In other words, pressing the right pushbutton once gives you an A, pressing it twice gives you a B, and so forth.

Once you have reached the letter you want, press both pushbuttons together to fix the character in memory and step on to the next character in the message. Enter the next character in the same way, then step on again. Continue in this way until the whole message is entered. Just step over any characters you want left as spaces in your message.

When you have finished entering your message, press both pushbuttons together and hold them down for 2 seconds. Your complete message will then be displayed one character after the other. Press the left pushbutton (S1) to view the message again.

You can store a message of up to 75 characters in length. Your message will be retained permanently in *Fridge Face* even after the battery is disconnected.

You can turn off sound if you want by pressing the right pushbutton (S2). To re-enable sound press the pushbutton again. Note that *Fridge Face* will always speak if a message has been left so as to attract attention. To turn off speech sounds enter an empty message.

Note that this kit contains Neodymium magnets. Care should be taken when handling them as they attract to metal objects and to each other with considerable force. They should be kept away from small children.