

## **Circuit Description**

### **Transmitter circuit**

- 1) B1 is the 9V 6F22 battery which is supplied to the transmitter.
- 2) Clock of the IC U1, 4MHz, is control by the crystal X2, C15 & C16.
- 3) Signal input to the IC which is corresponding to the button is pressed.
- 4) Input ports are included port 1, 2, 13, 14, 15, 16, 17, 18, 19
- 5) IC U1 will generated coded signal on the port 11. Then transmitted to the circuit when the button is pressed.
- 6) The generated signal will be adjusted and modulated with the 49.86MHz oscillator by the modulating circuit, X1, Q2, R7, C10 & L1.
- 7) Signal will then be amplified after pass through the amplifying circuit, Q1, C9, C3, C12, L2.
- 8) This amplified signal will be transmitted by the antenna.

### **Receiver Circuit:**

- 1) 9.6V rechargeable battery is supplied to the receiver circuit.
- 2) Antenna will received the modulated signal.
- 3) The modulated signal is tuned by the components Q1, L2, R2, C2, C3, C5, C29. port 17.
- 5) This amplified signal will decoded by the IC.
- 6) Output pulse will be generated by the IC on the output port.
- 7) Output port are included, port 1, 2, 13, 14, 19 & 20.
- 8) Corresponding function will be operated by the motor M2 & M1 and the LEDs, LED1-6.

