Circuit Description for IMA Bird Feeder Date: 5/31/2005

A) Transmitter

Transmitter including I/R transmitter, I/R receiver, I/R signal detector and driver, R/F transmitter encoder IC, R/F local oscillator and R/F signal transmitter amplifier :

1) Power on -- I/R transmitter LED (D2) turn on by driver (Q3).
2) While something moving face to I/R LED (D2) , the I/R signal reflect and receive by I/R photo transistor (Q4) and send signal to IC (RX2)
3) I/R signal detector and driver IC (RX2) received I/R signal then trigger the R/F transmitter IC (GTX2)
4) R/F transmitter IC (GTX2) send out signal modulate with local oscillation frequency by circuit (Crystal 49.86MHz and Q1)
5) R/F signal sending out through R/F power output transistor (Q2)

B) Receiver

Receiver including R/F oscillation and R/F front end amplifier (Q1), R/F decoder IC (RX2C), voice chip (V03) and speaker:

1) Power on -- Q1 stand-by to receive R/F signal
2) While receive R/F signal then de-modulate through Q1 to decoder IC (RX2C)
3) Decoder IC trigger voice IC (V03) then speaker output bird sound.