

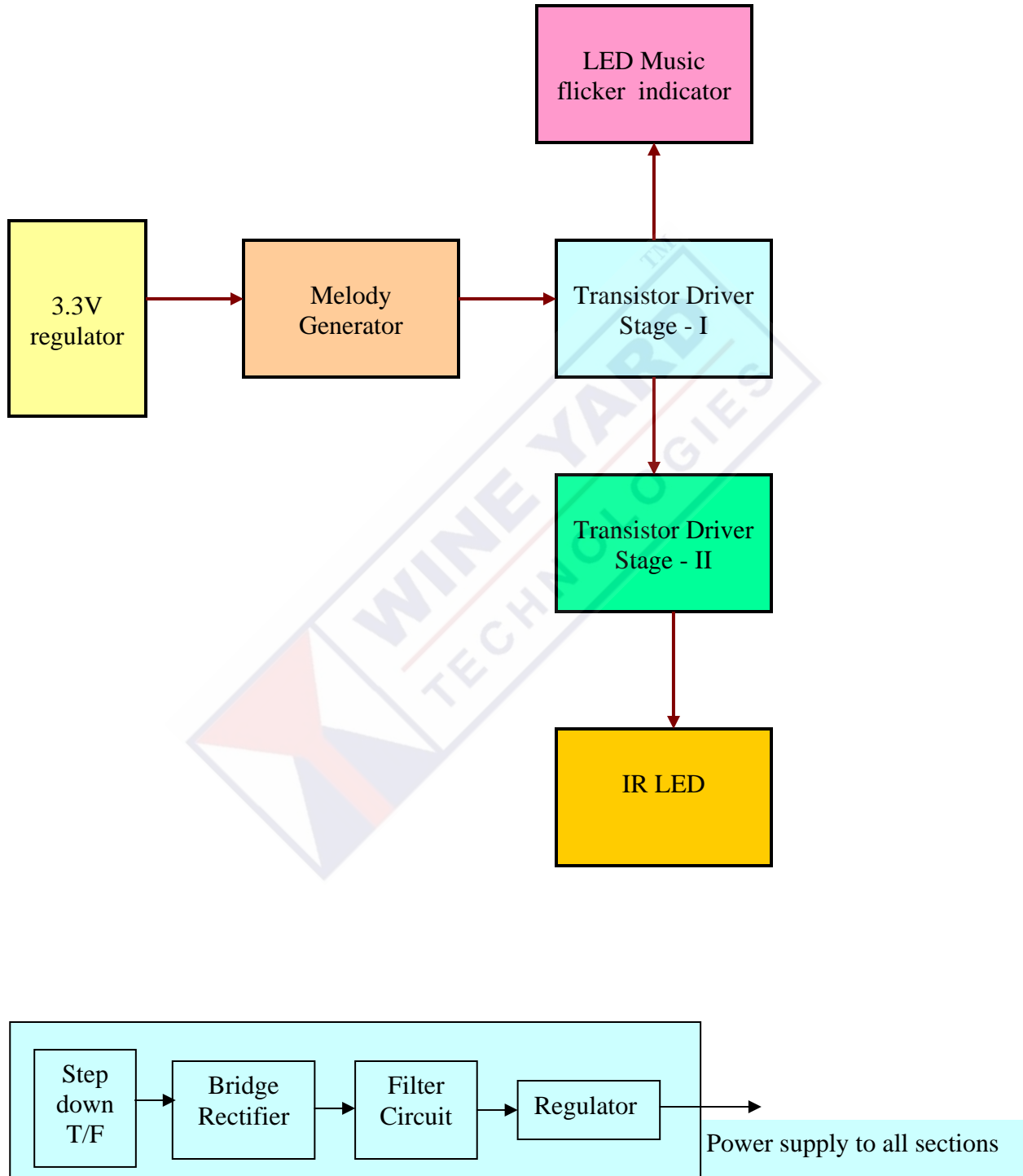
Wireless Music transmission and reception by IR communication

By using this project audio musical notes can be generated and heard up to a distance of 10 meters. The circuit can be divided into two parts: IR music transmitter and receiver. The IR music transmitter works off a 9V battery, while the IR music receiver works off regulated 9V to 12V. The transmitter uses popular melody generator IC UM66 that can continuously generate musical tones. The output of this music melody generator is fed to the IR driver stage to get the maximum range.

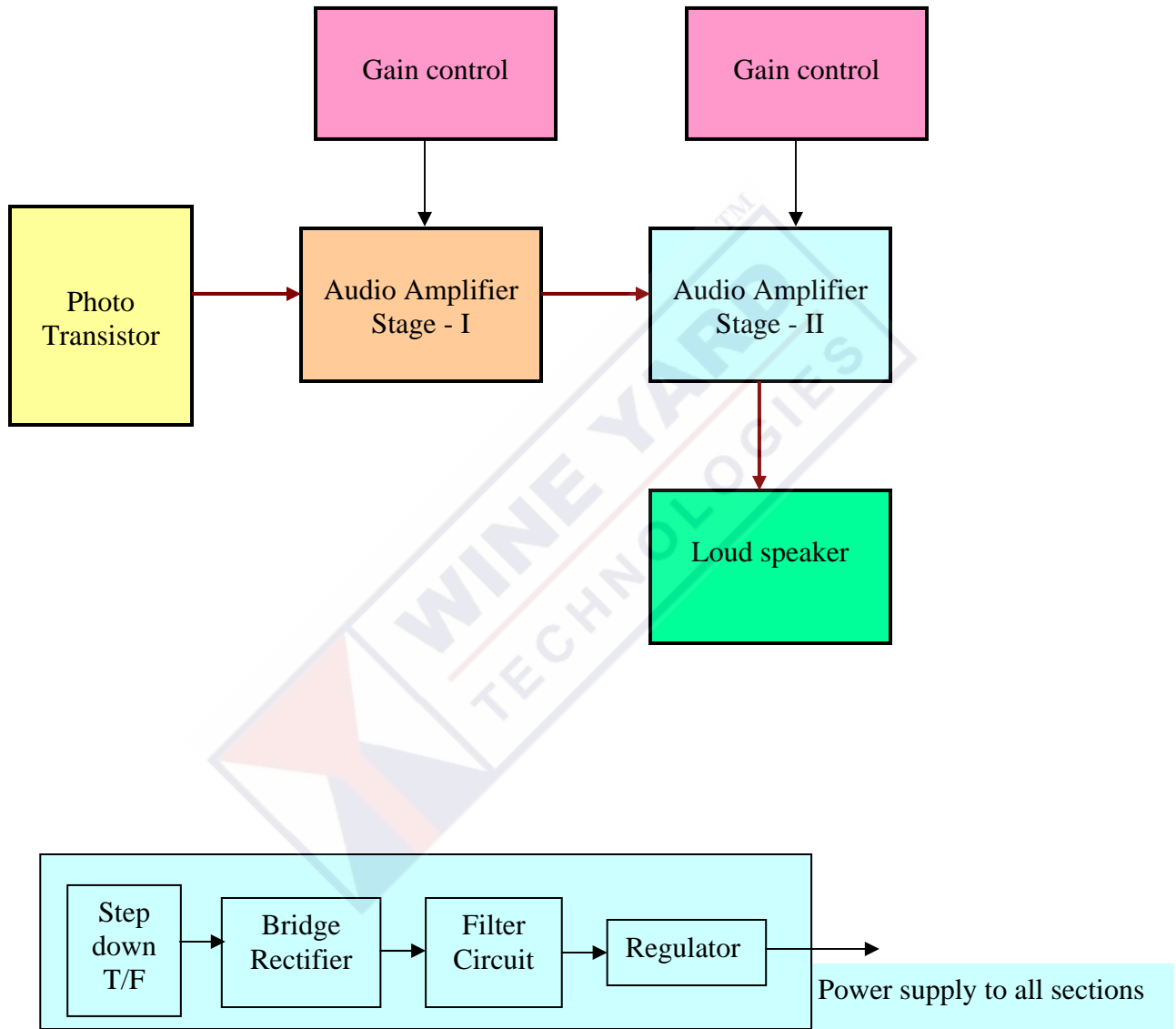
An LED is connected in the Transmitter section. This LED flickers according to the musical tones generated by UM66 IC, indicating modulation. Two IR LEDs are connected in series. For maximum sound transmission these should be oriented towards IR phototransistor L14F1. The IR music receiver uses popular op-amp IC μ A741 and audio-frequency amplifier IC LM386 along with phototransistor L14F1 and some discrete components. The melody generated by IC UM66 is transmitted through IR LEDs, received by phototransistor and fed to pin 2 of IC μ A741. Its gain can be varied using potentiometer VR1. The output of IC μ A741 is fed to IC LM386 via capacitor C5 and potentiometer. The melody produced is heard through the receiver's loudspeaker. Potentiometer VR2 is used to control the volume of loudspeaker (8-ohm, 1W). Switching off the power supply stops melody generation.

This project uses regulated 9V, 750mA power supply. 7805 three terminal voltage regulator is used for voltage regulation. Bridge type full wave rectifier is used to rectify the ac out put of secondary of 230/18V step down transformer.

Transmitter: Wireless Music transmission and reception by IR communication



Receiver: Wireless Music transmission and reception by IR communication

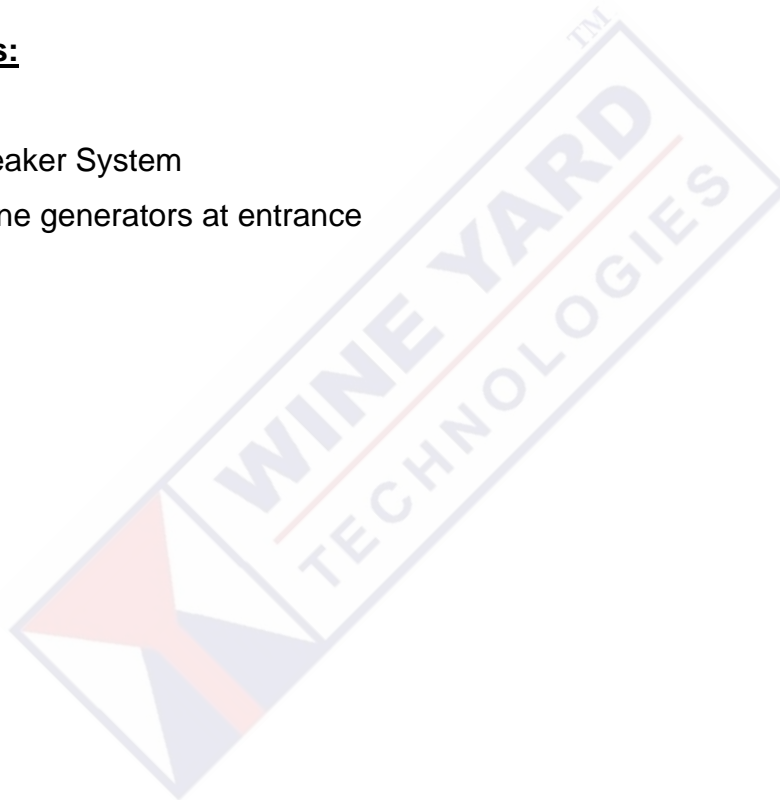


Advantages:

Highly sensitive
Two stage Gain control
Very low noise
Low cost and reliable circuit
Can transmit up to 10 meter

Applications:

Wireless Speaker System
Welcome Tone generators at entrance



Abstract Prepared By

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