

071305T4ELC

ELECTRONICS CRAFTSPERSON LEVEL 5

ENG/OS/ET/CR/05/5/A

Maintain Radio Frequency Systems

Nov/Dec 2024



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION  
COUNCIL (TVET CDACC)**

**PRACTICAL ASSESSMENT**

**Time: 2 ½ HOURS**

**INSTRUCTIONS TO CANDIDATE:**

1. You are required to perform the following task.

**TASK:** Mount and test an audio transmitter and receiver

2. You have been provided with the following resources for the practical tasks:

- Resistor,  $R1 = 1k\Omega$
- resistor  $R3 = 100k\Omega$
- Audio mp3 player (3.3V to 5V DC power supply, 3.5mm headphone jack output and MP3 Supported Audio Formats)
- Potentiometer,  $RV1 = 100k\Omega$
- Breadboard
- 9V Alkaline DC battery
- Photo diode,  $D3$
- $D1, D2 = IR$  Light Emitter Diode
- Electrolytic Capacitor,  $C3, C4 = 0.1\mu F$
- Electrolytic Capacitor,  $C1 = 10\mu F$
- Electrolytic Capacitor,  $C2 = 22\mu F$
- Amplifier LM386 IC

- *Speaker 0.5W 8Ω*
- *Soldering wire*
- *Soldering gun*
- *Connecting cables*
- *Digital multimeter*
- *Wire cutter*
- *Side cutter*

[easytvvet.com](http://easytvvet.com)

**TASK:** Figure 1, show a layout of audio transmitter and receiver. An input jack is connected to the audio output and transmitted wirelessly from the transmitter circuit to give an audio output on the receiver circuit speaker.

- i. Mount the audio transmitter and receiver components on the breadboard.
- ii. Prepare maintenance checklist for the circuit
- iii. Test the circuit for correct functionality

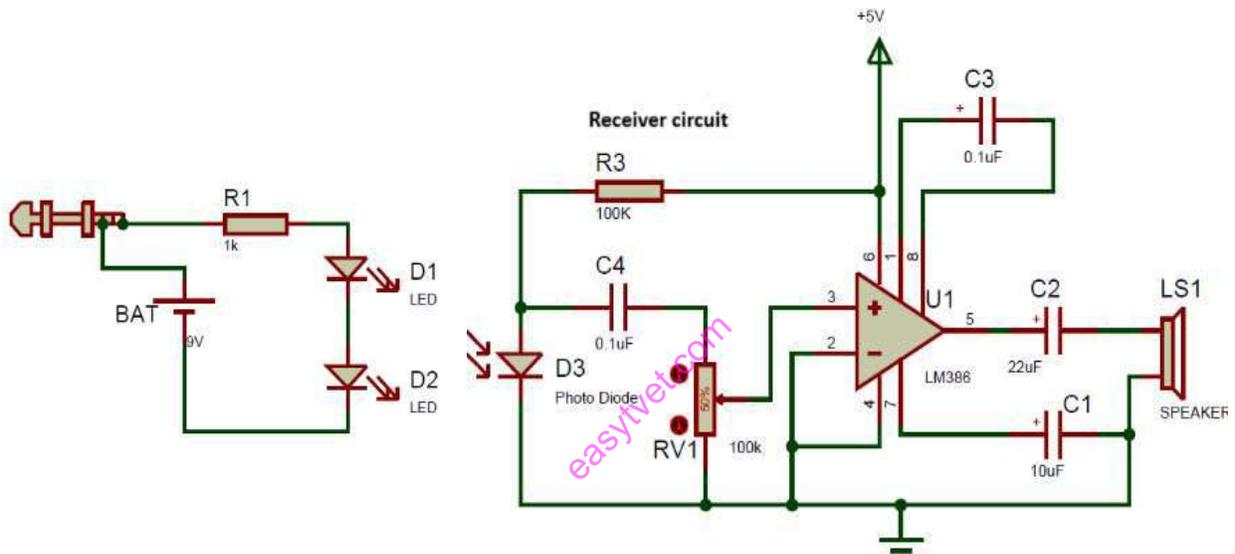


Figure 1