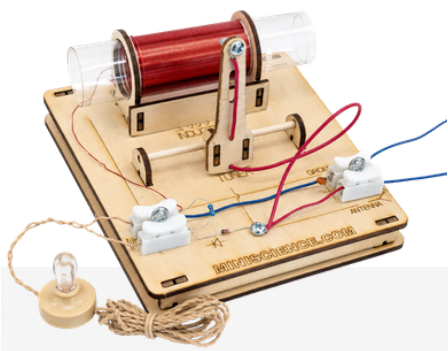


CRYSTAL RADIO

EVERYTHING YOU NEED TO BUILD ONE



SKU: CRADIO

INDUCTOR



CAPACITOR



RESISTOR



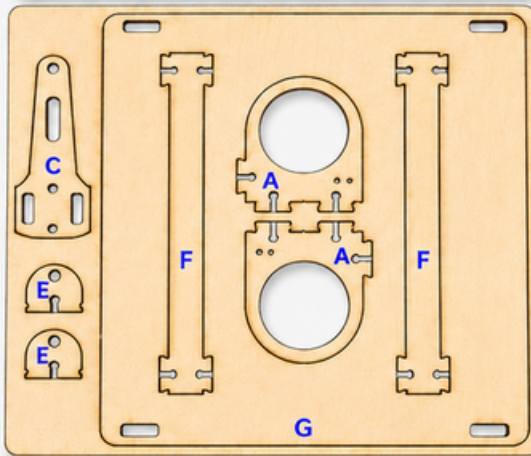
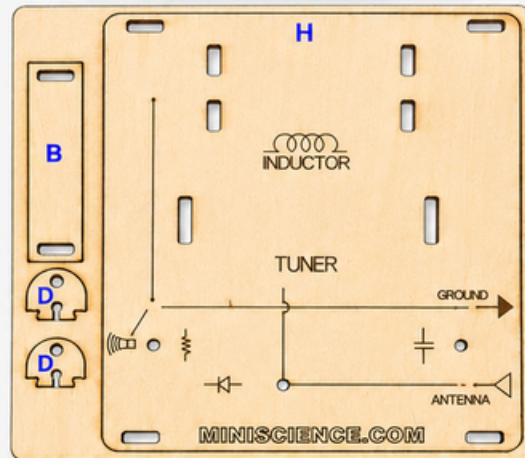
DIODE



ANTENNA AND
GROUND WIRE



MORE INFORMATION
SCAN HERE



PROJECT WIRE



TUNER AXLE



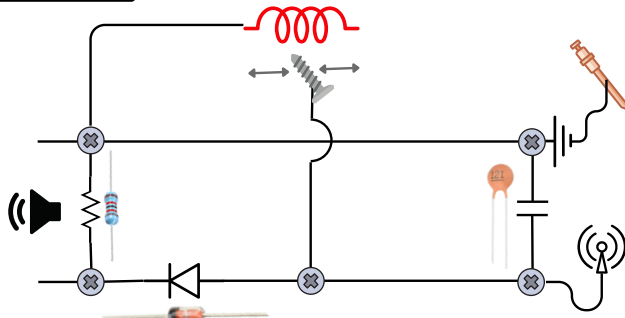
TUNER WIRE



PIEZOELECTRIC
EARPHONE



PUSH QUICK
CONNECTOR



VIDEO
INSTRUCTIONS,
PLEASE SCAN
THE QR CODE.

SKU: CRADIO



Note: Being closer to an AM radio station, using a good ground connection like a copper pipe, and setting up a large antenna will significantly improve the sound quality. All metallic components must be in contact with each other to ensure proper electrical conductivity. Additionally, further research and understanding of variable capacitors is recommended.

Additional Information:

Caution: Small and sharp parts. Not suitable for children under 8.

Recommended Age: Ages 12 and above. Adult supervision required.

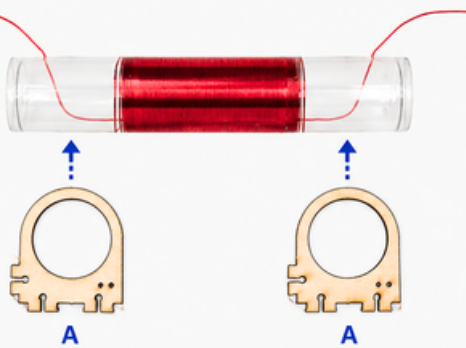
Before assembly, use sandpaper to smooth the wooden parts. Even with laser cutting, some residue or rough edges may remain that could affect the fit and performance.

1

ASSEMBLE THE INDUCTOR

Insert both "A" support pieces onto the ends of the inductor tube. Then route the copper wire through the fixing holes to secure the coil.

1

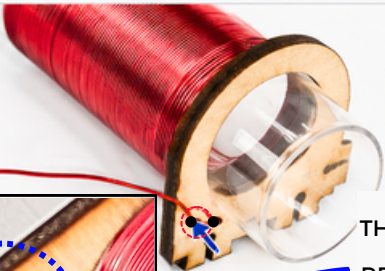


2

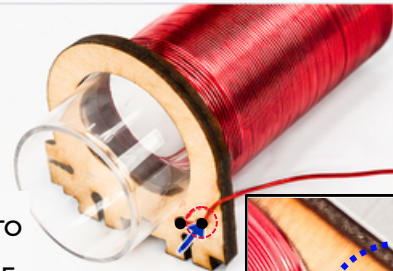


ROUTE EACH COPPER WIRE END THROUGH THE TWO SMALL FIXING HOLES ON EACH "A" SUPPORT PIECE.

3



4



LOOP THE COPPER WIRE THROUGH THE FIXING HOLES TO HOLD IT IN PLACE. REPEAT ON THE OPPOSITE SIDE.



CHECK:

- Support pieces "A" are fully seated.
- Copper wire is secured through the fixing holes.
- Coil is centered on the tube and wire is not cut.



2

INSTALL PIECE "B" AND MOUNT THE INDUCTOR

Insert piece "B" into the two support pieces "A". Then place the complete inductor assembly onto the base.

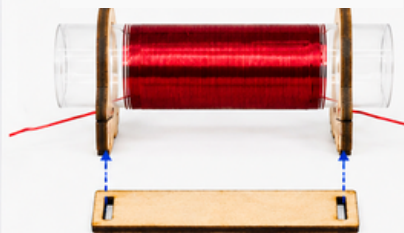
1

Piece "B".



2

Insert piece "B" into pieces "A".



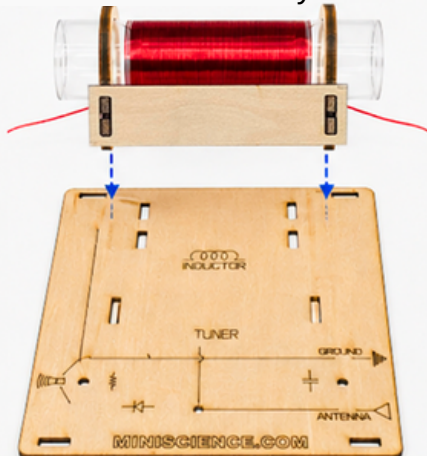
3

Inductor subassembly complete.



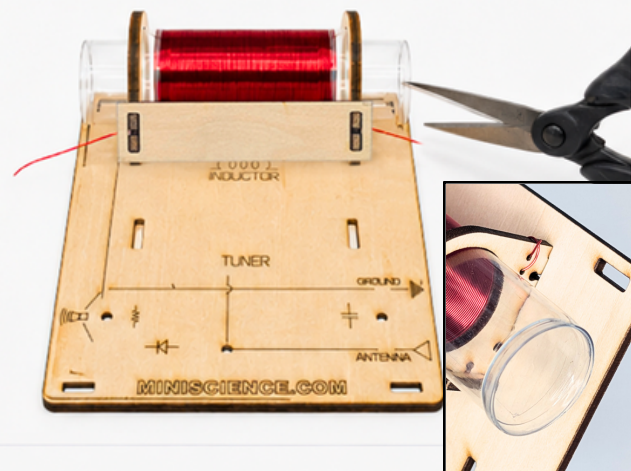
4

Place the inductor assembly onto the base.



5

Trim the excess copper wire on the right side.

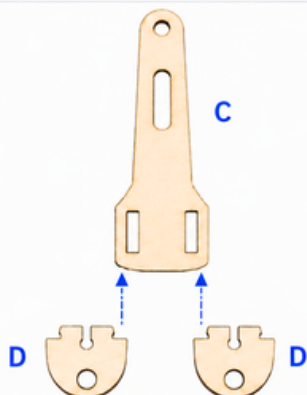


3

ASSEMBLE THE TUNER

ATTACH BOTH D PIECES TO C, SECURE THE TUNER WIRE, THEN MOUNT THE TUNER TO THE BASE WITH THE AXLE AND E SUPPORTS.

1



Place both D pieces on C.

2



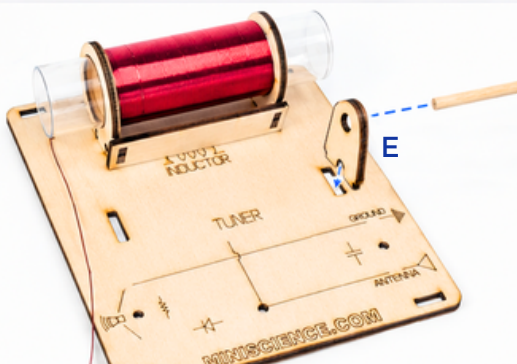
Press the pieces together.

3



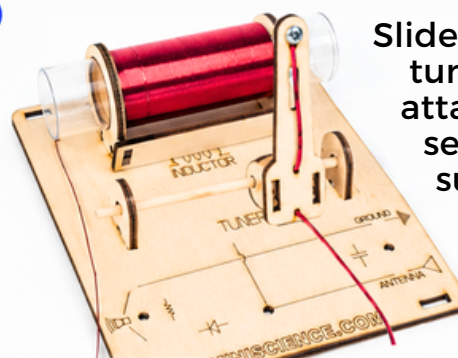
Attach the tuner wire with the screw.

4



Install the first E support and insert the axle.

5



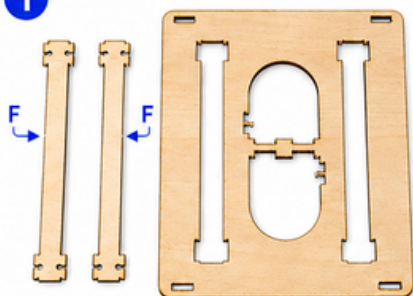
Slide on the tuner and attach the second E support.

4

INSTALL THE F SIDE SUPPORTS

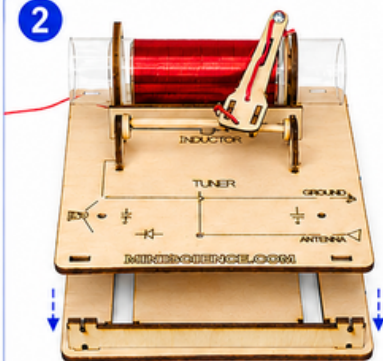
Join the upper base to the lower base using both side supports "F". Insert each support horizontally into the rectangular slots and press near the end holes, not in the middle, to avoid breakage.

1



Remove both F side supports.

2



Align the two bases and insert the first F support horizontally.

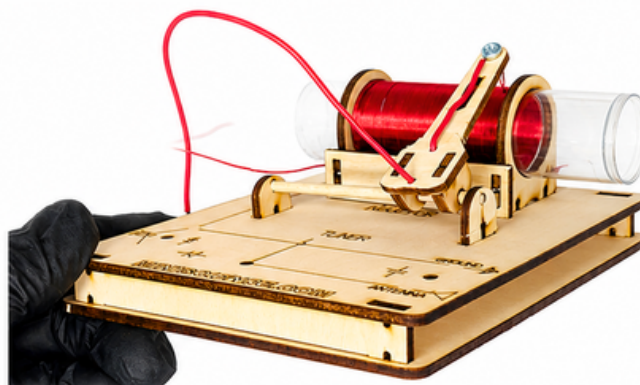
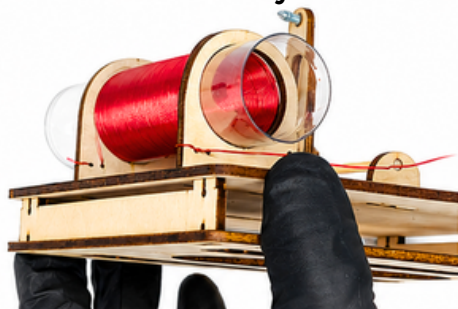
3



Press near the end holes until the support is fully seated.

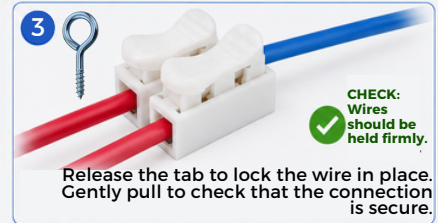
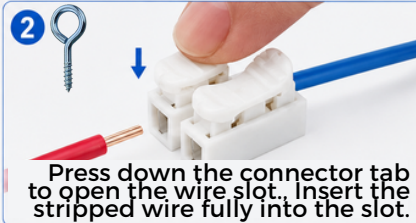
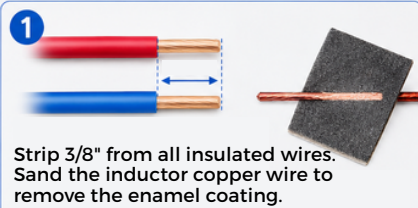
4

Repeat on the other side until the frame is fully assembled.



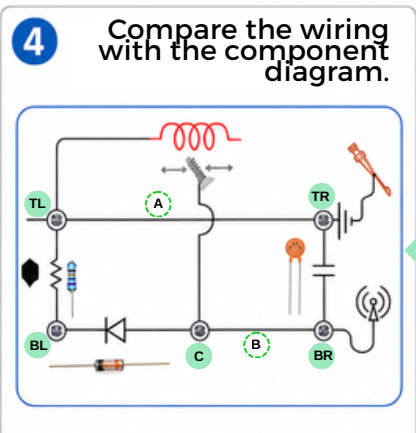
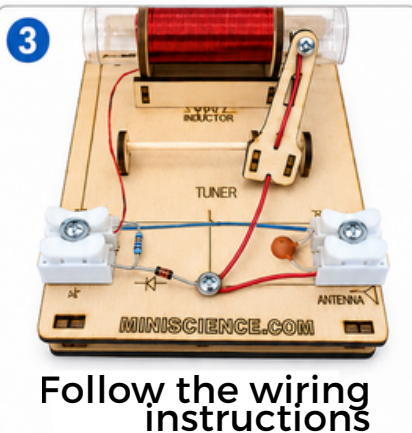
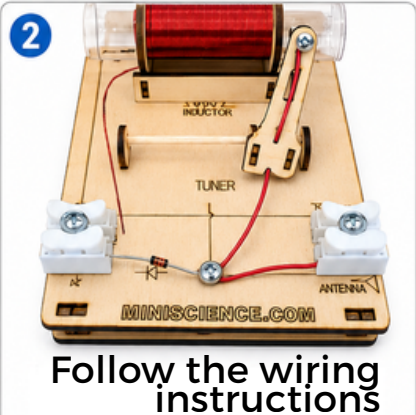
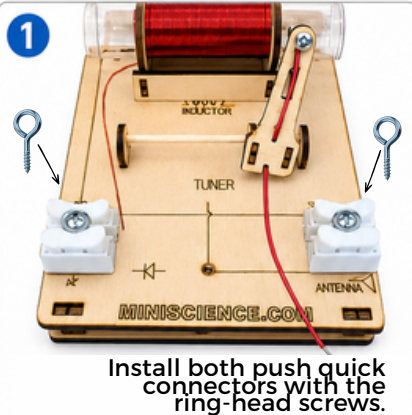
5 USE THE PUSH QUICK CONNECTORS

Strip 3/8" of insulation from all insulated wires. For the inductor copper wire, remove the enamel with sandpaper until clean bare copper is exposed before inserting it into the push quick connector.



6 INSTALL THE ELECTRONIC COMPONENTS

Mount the push quick connectors with the ring-head screws. Then install the diode, tuner lead, antenna wire, capacitor, resistor, and connecting wires. Compare the final wiring with the component diagram.



WIRING INSTRUCTIONS (USING PUSH QUICK CONNECTORS)

(TL) TOP-LEFT CONNECTOR:
4-inch inductor copper wire
One leg of the resistor
Project wire (A) (~4.5 inches)

(TR) TOP-RIGHT CONNECTOR:
Other end of the project wire (A)
One leg of the capacitor

(BR) BOTTOM-RIGHT CONNECTOR:
Other leg of the capacitor
New project wire (B) (~3 inches)

(C) CENTER CONNECTOR:
Project wire (B) "previous step"
One leg of the diode (1N34A)
Tuner wire

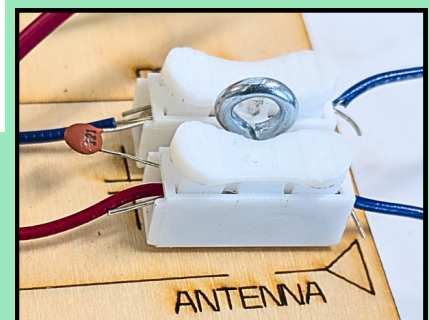
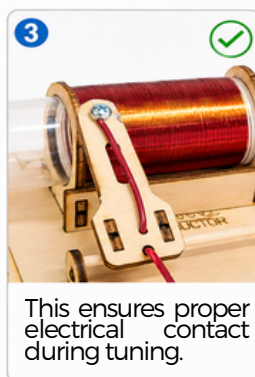
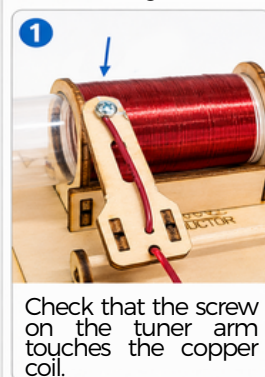
(BL) BOTTOM-LEFT CONNECTOR:
Other leg of the diode
Other leg of the resistor

CONNECT THE CRYSTAL EARPHONE

On the left side of the base, find the earphone symbol. Use the two Fahnestock Clips to connect the leads of the piezoelectric earphone. Ensure the wires are securely fastened and making metal contact.

7 PREPARE THE COIL SURFACE FOR TUNING

With the tuner installed over the coil, make sure the tuner screw can contact the copper winding. Sand the enamel off the coil along the full tuning path so the tuner can make electrical contact.



CONNECT THE ANTENNA AND GROUND WIRES

On the right side, locate the clips labeled antenna and ground. Use the provided long wire, cutting it into two parts:

- One for antenna
- One for ground

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