# Required Components

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|  | **BOM**   1. Roung Touch 60 Switch Housing 2. 8” Length of Wire 3. Power Cable 4. 3.5 mm Mono Cable 5. Optocoupler 6. 100 Ω Resistor 7. Touch Sensor 8. 2X Zip Tie 9. Small length of wire (Not shown) |

# Required Tools

* Soldering Iron
* Solder
* Wire Strippers
* Hot Glue Gun
* Hot Glue

# Required Personal Protective Equipment (PPE)

* Safety Glasses
* Fume Extractor or a well-ventilated space

# Assembly Instructions

## Step 1

Place the two wires into the case.

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| *A hand holding the top half of the Touch Switch case with a power and mono cables sticking out.* |

## Step 2

Solder the optocoupler connections:

1 - 100 Ω resistor

2 - Small length of wire

3 - 3.5mm mono cable

4 - 3.5mm mono cable

**Note:** Pins 3 and 4 on the optocoupler are soldered to the red and black wires of the mono cable. The order of black and red wires does not matter as long as they are on those pins.

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| A Optocoupler with pins labeled one to four. *A hand soldering the optocoupler connections.* |

## Step 3

Solder the Touch Sensor connections: Solder the red power cable to the **VCC** pin, the 100 Ω resistor to the **I/O** pin, the ground power cable and short wire (from pin 2 on the optocoupler) to the **GND** pin on the touch sensor.

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| *Connections being soldered onto the touch sensor.* |

## Step 4

Solder the 8” length of wire to the top right of the touch sensor, seen in the green circle.

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| A touch sensor with a green circle over the capacitance sensor. *A fully assembled touch sensor being put inside the Touch Switch case.* |

## Step 5

Place all the components into the case and run the wire through the tabs as shown below. Use hot glue to help secure all the electronics and attach the zip ties around the power cable and mono cable within the case to secure them if pulled.

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| **The electronics being installed into the Touch Sensor case.** |

## Step 6

Screw on the top of the case and plug the power cable into the 5V 2A power supply to complete the build. If the device does not work, check all the electronic connections.

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| *A hand Touching a black 3D printed Touch Sensor which activates a white switch activated light.* |

For more detailed instructions, watch the Touch Twitch build tutorial: [Touch Switch Tutorial - YouTube](https://www.youtube.com/watch?v=Iro8C4j6y7s)