Tasks

Control a 270V outlet with an Arduino

List of Hardware needed (links are just examples of the needed ones)

1. [433 MHz transmitter/receiver](#)

2. [Female to Male Jumpers Wires](#)

3. [433MHz outlet](#)

Resources

[Decode and Send 433 MHz RF Signals with Arduino](#)

[Remote power outlet home automation tutorial ESP8266](#)

LCD Touch Pad

List of Hardware needed

1. [3,2" TFT LCD Touch display for Arduino UNO, MEGA R3, Mega2560, Mega1280](#)

2. [TFT LCD Mega Shield 3,2"](#)

3. [Male to Male jumper wires](#)

4. [Arduino Mega2560](#)

Resources

[Arduino TFT LCD Touch Screen Tutorial](#)

[Arduino Touchscreen Display - Using a Resistive Touchscreen](#)

Control Solenoid Valve with Arduino

List of Hardware needed

1. TIP120 Darlington Transistor (I also found this link) or TIP127 Darlington

   Transistor

2. One 1K Ohm Resistor

3. Two 1N4001 Diode

4. 12 V Power Supply

Resources

Controlling a Solenoid Valve with Arduino

External Hardware needed:

1. Breadboard

2. 2 LEDs

3. Black tape to cover wires (insulator)

4. Copper wire to extend the cables.

More useful resources:

[Arduino Relay Tutorial – Control High Voltage Devices with Arduino](#)

[Turn any Appliance into a Smart Device with an Arduino Controlled Power Outlet](#)

[Arduino Wireless Communication – NRF24L01 Tutorial](#)

Arduino Wireless Network with Multiple NRF24L

Final Circuit

Solenoid Valve

1,000 Ω

B

NPN

E

C

C

P E P E

Connection in

Parallel to maintain 12V

LCD

Touch display and TFt Shield

433 MHz Transmitter