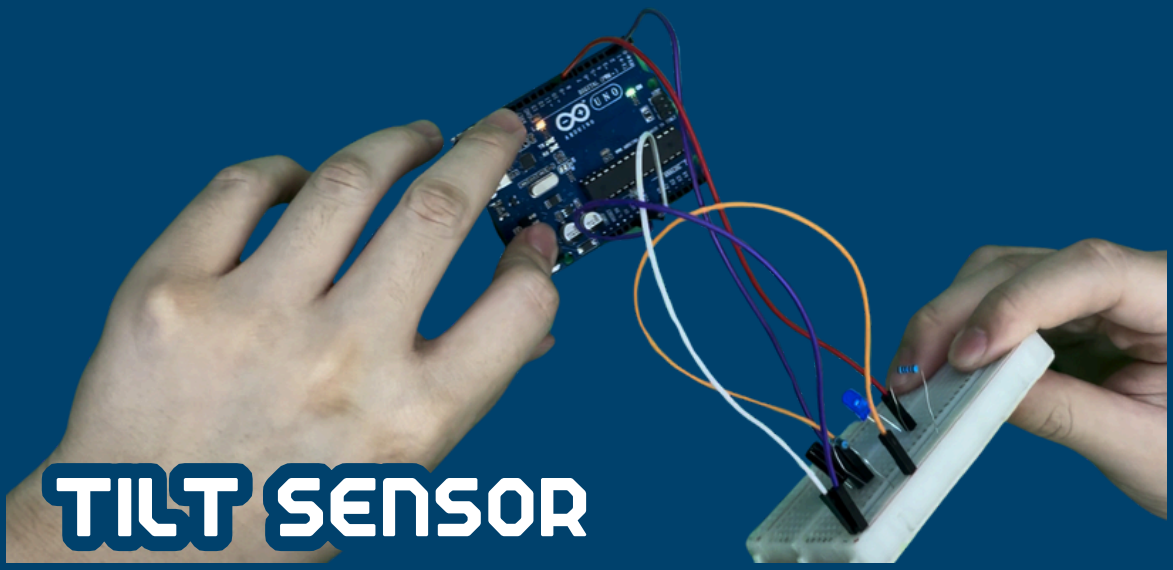
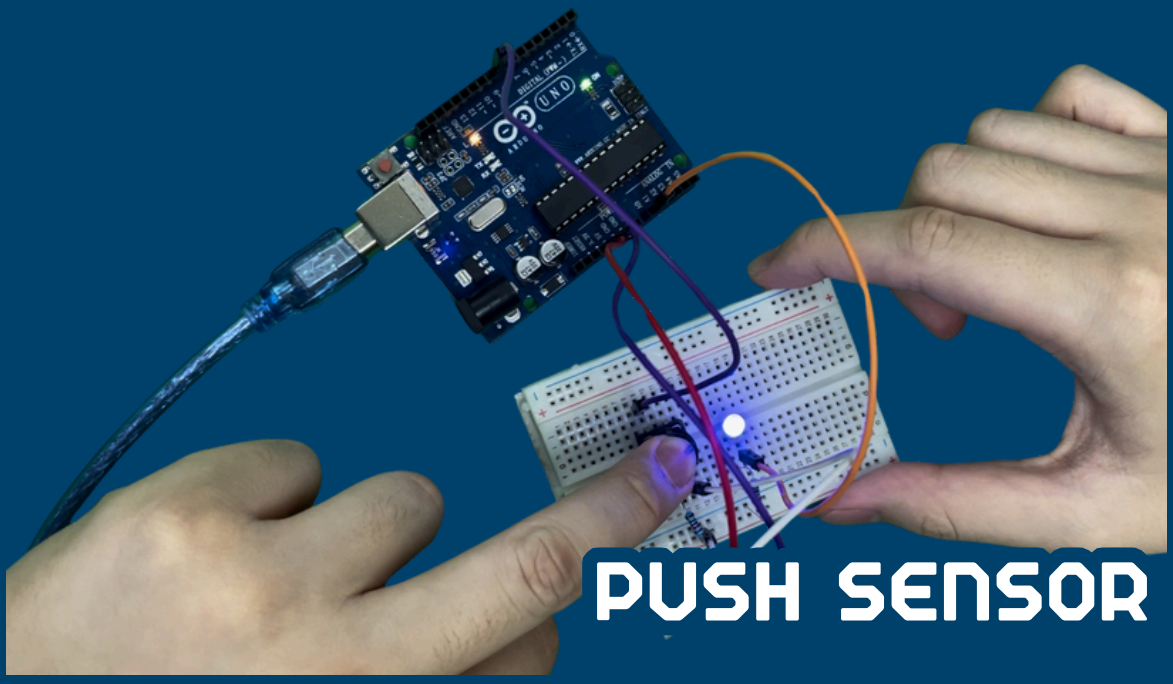
SPARK MANUALS

ARDUINO UNO





SENSORS

MADE BY PAUL LEE

STEPS: CIRCUITS

First, you get one of your dumper wires and plug one side in the 5V and the other side on the positive of the breadboard. Then, you take another dumper wire and plug it in GND, beside the 5V, then the other side on the negative side of the breadboard. Then take your tilt sensor and plug it in the breadboard horizontally. There is no difference between the left and the right leg so either of them could be positive or negative. Take a resistor and plug one side of the resistor in the negative terminal of the breadboard and the other side on the breadboard itself, aligned with one of the legs. Then take a dumper wire and plug one side in front of the other leg of the tilt sensor, the leg not connected to the resistor. And take the other side and plug it in digital pin #2. Then take one LED bulb and stick it to the breadboard. Grab a resistor and stick it aligned to the anode and the other on the negative side of the breadboard. Then take a dumper wire and plug one side aligned to the cathode and the other in digital pin #10. Then take another dumper wire and connect one side aligned to the positive side of the tilt sensor and the other on the positive side of the breadboard. Then make a program for the tilt sensor to work as intended. This is the program used in this video (show screenshot of program.) After the program has been made, plug the downloader on the Arduino Uno board and download your program. Once it's downloaded, you can tilt the entire breadboard and see the LED light up!

STEPS: CIRCUITS

First, you get one of your dumper wires and plug one side in the 5V and the other side on the positive of the breadboard. Then, you take another dumper wire and plug it in GND, beside the 5V, then the other side on the negative side of the breadboard. Then take a push button and plug it in a place so that it's attached to both sides of the breadboard, the upper part and the lower part. Then take a resistor and plug it aligned to the left side of the push button. And the other side on the negative side of the breadboard. Then take another dumper wire and plug one side on the right side of the push button and the other side on the positive side of the breadboard. Then take another dumper wire and plug one side on the upper half of the breadboard, while still being aligned to the push button. And take the other side and plug it in digital pin #8. Then take a LED bulb and plug it on the breadboard. Plug a resistor aligned to the cathode and the other side on the negative side of the breadboard. Then take another dumper wire and plug it aligned to the anode, and the other side plug it in at A1. Then make a program for the push button to work as intended. This is the program used in this video (show screenshot of program) After the program has been made, plug the downloader on the Arduino UNO board and download your program. Once it's downloaded, you can push the button and see the LED light up!

STEPS: CIRCUITS