LilyPad Temperature Sensor

DEV-08777
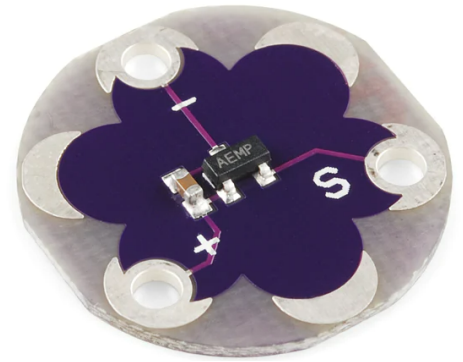
Product Overview
12-30-2021
For the most up-to-date information, visit www.mouser.com or the supplier's website.

Description

SparkFun LilyPad Temperature Sensor is designed on the MCP9700 small thermistor type temperature sensor. This sensor will output 0.5V at 0°C, 0.75V at 25°C, and 10mV per degree C. The LilyPad temperature sensor detects physical touch based on body heat and ambient conditions. This temperature sensor is available in 20mm outer diameter and features a 0.8mm thin Printed Circuit Board (PCB).

Each LilyPad is creatively designed to have large connecting pads to allow them to be sewn into clothing. There are various input, output, power, and sensor boards are available. It is also washable.
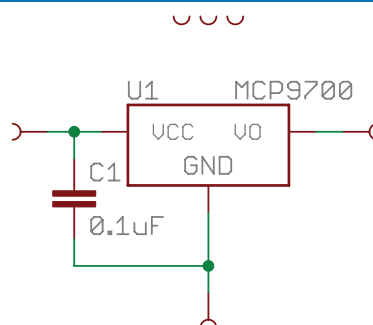
Features

- Based on MCP9700 small thermistor type sensor
- 20mm outer diameter
- 0.8mm thin PCB
- Readily applicable to wearable e-textile technology

Applications

- Hard disk drives and other PC peripherals
- Entertainment systems
- Home Appliance
- Office equipment
- Battery packs and portable equipment
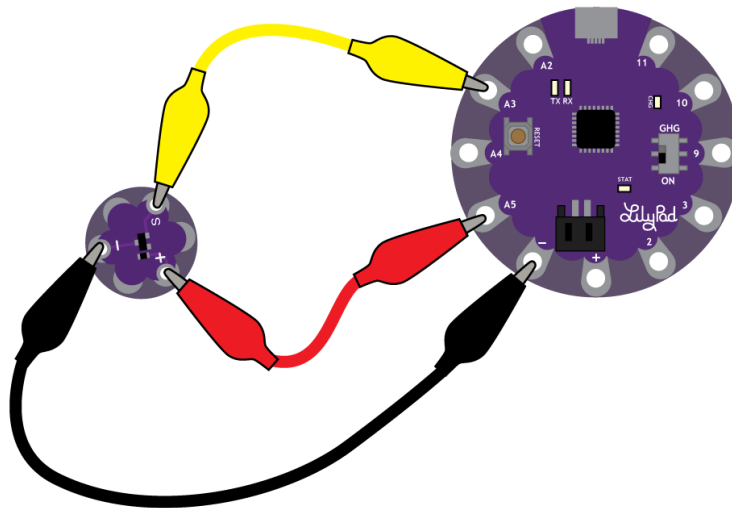- General-purpose temperature monitoring

Schematic

Attaching to a LilyPad Arduino

The LilyPad Temperature Sensor has three sew tabs - **Power** (+), **Ground** (-), and **Signal** (S). The signal tab will be connected to an analog tab (marked with an 'A') on a LilyPad Arduino.
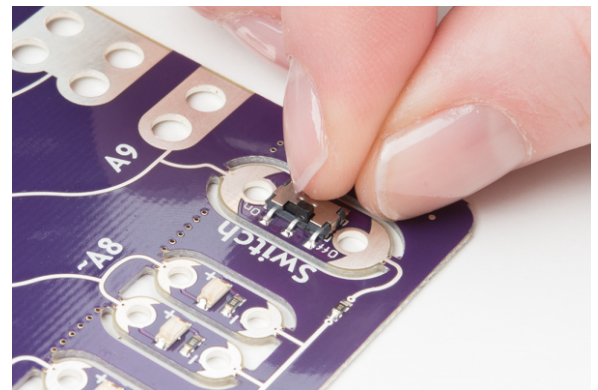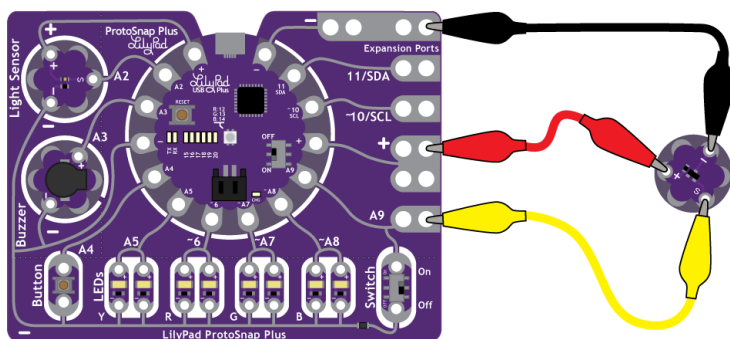
LilyPad Arduino USB
- Use alligator clips to connect Signal to A3 temporarily
- **(-)** to **(-)** on the LilyPad
- **(+)** to **(A5)**

LilyPad ProtoSnap Plus
- Clip the temperature sensor's signal sew tab to expansion portA9
- Slide the switch to the OFF position to keep the switch from interfering with the input signal.

Other LilyPad connection notes:

- When operating the **ProtoSnap – LilyPad Development Simple**- attach to the metal tab at the top right of the board; it connects to A3. To use it as an additional power tab, set pin A5 to HIGH in code, as the LilyPad Simple's tab is hard to access in the ProtoSnap format.
- If operating the pre-wired temperature sensor on the **ProtoSnap- LilyPad Development Board**, it is attached to pin A1.

Mouser Part Number

View Part

To learn more, visit https://www.mouser.com/new/sparkfun/sparkfun-lilypad-temperature-sensor/