EX - 12
Touch Sensor

Problem

You want to make a buzzing sound with the Raspberry Pi using touch sensor.

Solution

These example programs show you how to use the capacitive touch sensors with Python and the Raspberry Pi's GPIO. It is relatively straightforward to adapt the programs to do different things. Just change the lines with print "pressed".

Two versions of the code are provided. One will continuously print output to the terminal while the touch sensor is pressed. The other will only print output once, irrelevant of how long the pad is pressed. Both pieces of code will work with the momentary and toggle boards.

Continuous Output:

This version of the code will continuously print output while the pad is pressed.

```
import time
import RPi.GPIO as GPIO
GPIO.setmode(GPIO.BCM)

padPin = 23
GPIO.setup(padPin, GPIO.IN)

while True:
    padPressed =  GPIO.input(padPin)

    if padPressed:
        print "pressed"

    time.sleep(0.1)
```

Single Output:

This version of the Python code will only print an output once each time the sensor detects a touch.

```
import time
import RPi.GPIO as GPIO
GPIO.setmode(GPIO.BCM)

padPin = 23
GPIO.setup(padPin, GPIO.IN)
```

```
alreadyPressed = False

while True:
    padPressed =  GPIO.input(padPin)

    if padPressed and not alreadyPressed:
        print "pressed"

    alreadyPressed = padPressed
    time.sleep(0.1)
```

Running the Code:

Open a terminal. Move to the directory that you saved the code and type in the following command (change the file name to whatever you called your Python file):

```
$ sudo python touchsensor.py
```