```
#include <CapacitiveSensor.h>
#include <Keyboard.h>
//#include <Mouse.h>


/*
 * Simple capacitive touch board
 * Utilises »CapacitiveSensor« library by Paul Badger and Paul Stoffregen
 * by: Frederik Brückner
 * date: 2018-01-14
 * Atmega 32u4 (Arduino Leonardo, Pro Micro) based HID
 * Send keystrokes with touch electrodes
 */

boolean debug = false;                // debug mode enable/disable
const int threshold = 500;            // sensitivity threshhold for touch detection
const int numSense = 10;              // number of sensors
const int sampleLength = 80;          // sample length in bytes
volatile long senseArray[numSense]; // sensor value array
unsigned long debounceDelay = 20;   // software debounce time
unsigned long lastTouch = 0;          // when did the last touch register

CapacitiveSensor CS[numSense] =     // sensor object array 1M resistor between
    pins 2 & sensor pin, add a wire and or foil
{
  CapacitiveSensor(2,5),
  CapacitiveSensor(2,6),
  CapacitiveSensor(2,7),
  CapacitiveSensor(2,8),
  CapacitiveSensor(2,9),
  CapacitiveSensor(2,10),
  CapacitiveSensor(2,16),
  CapacitiveSensor(2,14),
  CapacitiveSensor(2,15),
  CapacitiveSensor(2,18)
};

char keys[numSense] =               // char array to hold key stroke values
{
  '1',
  '2',
  '3',
  '4',
  '5',
  '6',
  '7',
  '8',
  '9',
  '0'
};

void setup()
{
```

```
  if (debug){
    Serial.begin(9600);
  }
   Keyboard.begin();
   //Mouse.begin();
   lastTouch = millis();
} // end setup

void loop()
{
  unsigned long start = millis();
  for (int i=0; i<numSense; i++){
  senseArray[i] = CS[i].capacitiveSensor(sampleLength);
  }
  if (debug){
    Serial.print(millis() - start); // check on performance in milliseconds
    Serial.println("\t");           // tab character for debug windown spacing
    for (int i=0; i<numSense; i++){
      Serial.print("Sensor ");
      Serial.print(i);
      Serial.print("= ");
      Serial.println(senseArray[i]);  // print sensor output
    }
    delay(10);                      // arbitrary delay to limit data to serial
        port
  } // end debug

  for (int i=0; i<numSense; i++){
    if (senseArray[i] > threshold && (millis() - lastTouch) > debounceDelay){
      lastTouch = millis();
      Keyboard.print(keys[i]);
    }
  }
} // end loop
```