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// Arduino code to communicate with smartphone via BLE
#include <SoftwareSerial.h>

const int buttonPin = 4;    // the number of the pushbutton pin
const int ledPin = 3;      // the number of the LED pin

SoftwareSerial ble_device(0,1); // BLE TX-> ATtiny85 PB0, BLE RX-> ATtiny85 PB1

int buttonState = 0;       // variable for reading the pushbutton status

volatile int ii = 0; // integer to iterate

void setup() {
  // initialize the pushbutton pin as an input
  pinMode(buttonPin, INPUT);
  // initialize the LED pin as an output:
  pinMode(ledPin, OUTPUT);

  ble_device.begin(9600); // start BLE device
  delay(500); // wait until BLE device starts

  ble_device.println("AT+NAMEATtiny85_BLE"); // change device name
  delay(500); // wait for change
  ble_device.println("AT+RESET"); // reset module to enact name change
  delay(1000); // wait for reset
}

void loop() {
  // read the state of the pushbutton value:
  buttonState = digitalRead(buttonPin);

  // check if the pushbutton is pressed.
  // if it is, the buttonState is HIGH:
  if (buttonState == HIGH) {
    // turn LED on:
    digitalWrite(ledPin, HIGH);
    ble_device.println("On"); // send string to smartphone
    delay(250);
  }
  else {
    // turn LED off:
    digitalWrite(ledPin, LOW);
    delay(250);
  }
}
}

```