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Laboratory exercises set 2

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1. Serial communications - advanced **DO NOT CHANGE THE GPRS SHIELD BAUD RATE!!**

   a) Find a way to communicate between the terminal – Arduino – GPRS-Shield combination
   b) How high baud rate can Arduino serial communications support? How high baud rate will suffice the communication between the device and PC? What about the Arduino and GPRS-Shield?

2. Serial communications, AT commands and sending SMS messages

   a) Refer to the AT Command Set and find proper AT commands to communicate with the GPRS-Shield so you are able to insert the PIN code for the SIM card.

NOTICE! REMEMBER THAT IF YOU INSERT THE PIN CODE INCORRECTLY TOO MANY TIMES (3) THE SIM CAR WILL LOCK UP ITSELF!

RESET THE DEVICE RATHER THAN LOCK UP YOUR SIM CARD!

   b) Find a way to send an SMS message using the AT commands though the terminal connection. Send a message “Hello from tem (insert your team number here)” to your own cell phone.

3. Controlling the memory and phonebook

   a) Find a way to control the memory used for storing information in GPRS-Shield (what memories do we have?)
   b) Save one of your team members numbers to the SIM memory phonebook
   c) Call the GPRS-Shield number and see the result in terminal monitor
   d) Find out what are the fields included in to the call if you don’t know what they are

4. AT commands, continued

   a) List all useful information that is available through the GSM network
   b) Select some of this information and display it on the LCD screen

Make sure you show your results to the teacher!

If you get all these done and you still have time, ask the teacher for more things to do!