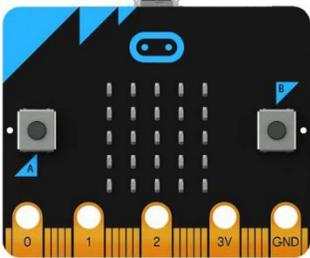


# Robotics and Cryptography Workshop

Welcome! Today you will learn what the micro:bit is and how to use it. You will create a simple program on the computer and transfer it to the micro:bit. Afterwards, you will learn the basics of cryptography and use the micro:bits to decipher messages written in an ancient Slavic script called Glagolitic.

## What is a micro:bit?



Imagine a tiny computer, the size of a pocket! That is essentially what the micro:bit is.

It is a small programmable device designed to make learning technology and programming fun and accessible.

## It comes with interesting features such as:

- LED Display: A grid of 25 red LEDs that can display text, numbers, and even simple images.
- Buttons: Two buttons (A and B) that you can program to trigger different actions.
- Sensors: Built-in sensors like an accelerometer (to detect movement) and a compass.
- Connectivity: It can connect to other devices via radio and Bluetooth.

[Watch a short movie about micro:bit](#)

## How to use it:

1. Programming: You will use a computer to write a program for the micro:bit. Go to the website <https://makecode.microbit.org/> and create your first simple program.
2. Program transfer: Once the program is written, you "flash" it onto the micro:bit.
3. Program execution: After the program has been transferred, you can unplug the micro:bit, connect the battery, and see your program come to life!

## Make your first program:

- Make an animation of beating hearth that is always shown
- Write your name when button A is pressed
- Write your favorite number when button B is pressed
- Show sad smiley face when micro:bit is shaken
- Transfer your program to micro:bit and test it

## Cryptography and Glagolitic:

Now, for the exciting part! Cryptography is the art of secret writing. It involves techniques to encode messages so that only the intended recipient can understand them.



Glagolitic is one of the oldest known Slavic alphabets. It was used to write Old Church Slavonic, the first literary language of the Slavs, already in the 10th and 11th centuries.

Your task is to decipher the message written on the paper using the micro:bit. When you press button A, a Glagolitic symbol is shown. When you press button B, you get the symbol in Latin script – the translated letter. Be careful because some of the letters are not so easy to recognize.

[Put this program on your micro:bit](#). When button A is pressed a random Glagolitic sign will be shown and when button B is pressed, a translation will be shown. Use it to decipher five interesting messages. Good luck 😊

1	<p>យន្តការ ឆ្លើយតប យ៉ាង គ្រប់គ្រាន់ ទៅលើ ការ ប្រកួតប្រជែង ក្នុង វិស័យ កីឡា និង វិស័យ ផ្សេងៗ ទៀត</p>
2	<p>យន្តការ ឆ្លើយតប យ៉ាង គ្រប់គ្រាន់ ក្នុង ការ គ្រប់គ្រង និង ការ គ្រប់គ្រង ធនធាន មនុស្ស និង ធនធាន វិស័យ ផ្សេងៗ ទៀត</p>
3	<p>យ៉ាង គ្រប់គ្រាន់ និង គ្រប់គ្រង ធនធាន មនុស្ស និង ធនធាន វិស័យ ផ្សេងៗ ទៀត យ៉ាង គ្រប់គ្រាន់</p>
4	<p>ឆ្លើយតប: យ៉ាង គ្រប់គ្រាន់ និង គ្រប់គ្រង ធនធាន មនុស្ស និង ធនធាន វិស័យ ផ្សេងៗ ទៀត យ៉ាង គ្រប់គ្រាន់</p>
5	<p>យ៉ាង គ្រប់គ្រាន់ និង គ្រប់គ្រង ធនធាន មនុស្ស និង ធនធាន វិស័យ ផ្សេងៗ ទៀត យ៉ាង គ្រប់គ្រាន់</p>