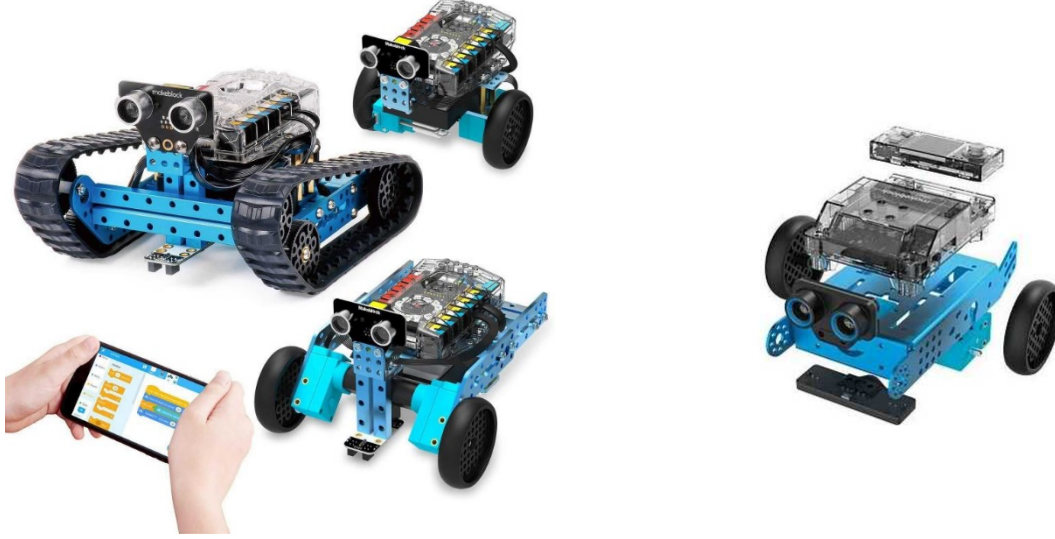


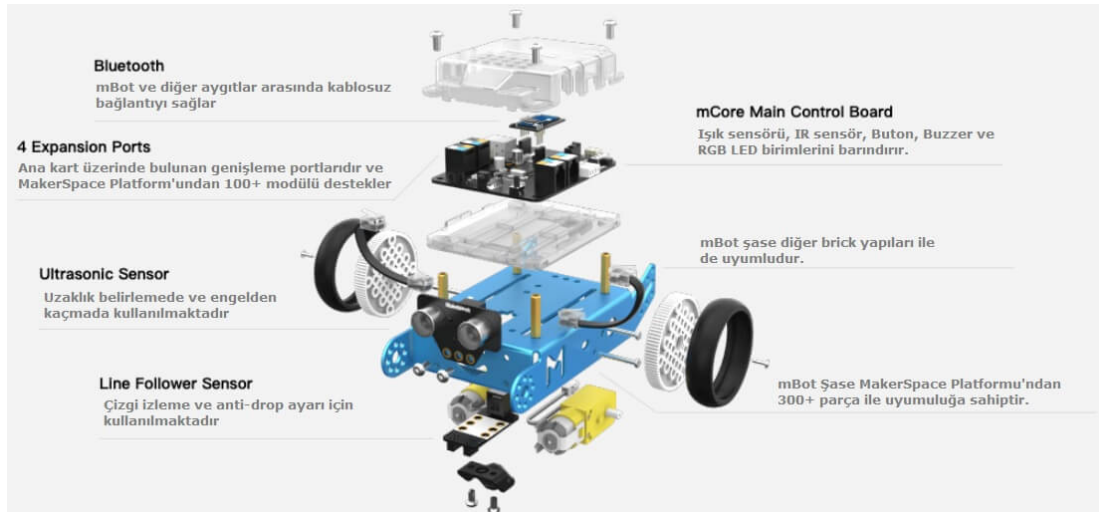
## MakeBlock

MakeBlock is a brand that creates diverse mechanical assemblies from aluminum parts and enables control of these systems using universal development boards. It specializes in developing education-focused products.



"It is a product that emerged with the idea of 'a robot for every child.' Therefore, it does not require complex electronic connections and demanding mechanical assembly.

When we move on to the assembly part, our mBot has 2 wheels and 2 DC motors connected to these wheels. The DC motors are located in the internal sections, and the main board is

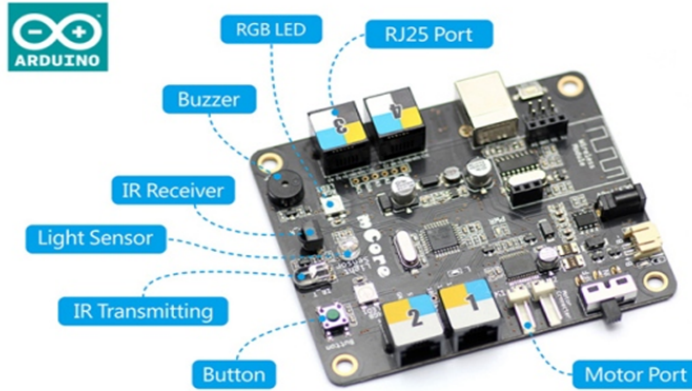


located in the upper parts. At the front of the mBot, there is a distance-sensing ultrasonic sensor. To assemble our mBot, we can use the assembly user guide for assistance."

## How to Code MakeBlock?

In addition to being controllable with smart devices such as smartphones and tablets, it is possible to program this robot as desired using the Scratch software platform.

The mCore board on it is Arduino-supported, allowing the robot to acquire entirely different features by writing custom programs, rather than being limited to pre-made programs.



### "MakeBlock with First Movement

Before diving into coding, you can make its initial movements using the pre-installed programs. You can operate it in three different modes using the infrared remote control that comes with it:

A: Manual mode → You can steer the robot using the arrow keys.

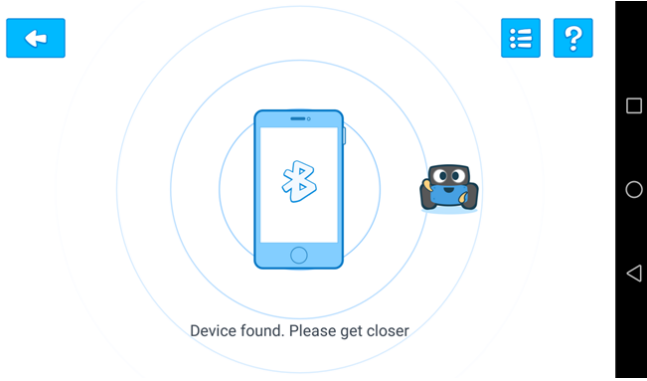
B: Obstacle avoidance mode → The robot avoids obstacles using the ultrasonic sensor in front of it.

C: Line-following mode → The robot follows black lines drawn on a white surface using the two line sensors on its bottom.

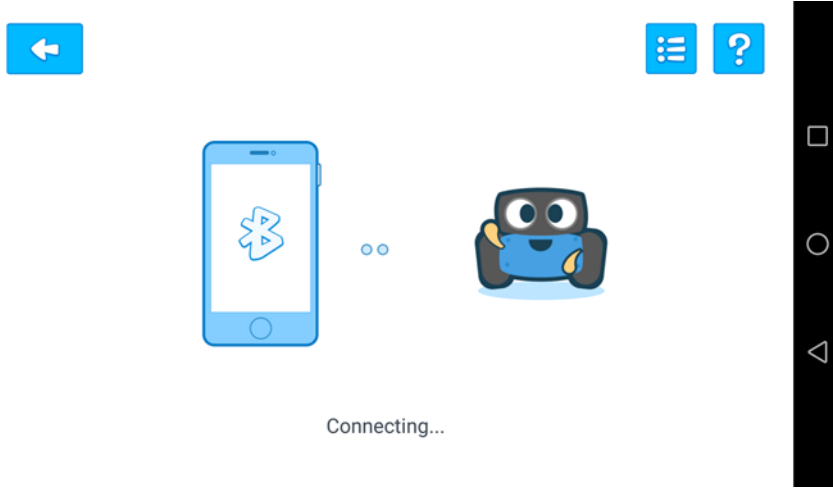
1-9: Adjusts the speed of the motors."

## How to Use MakeBlock App?

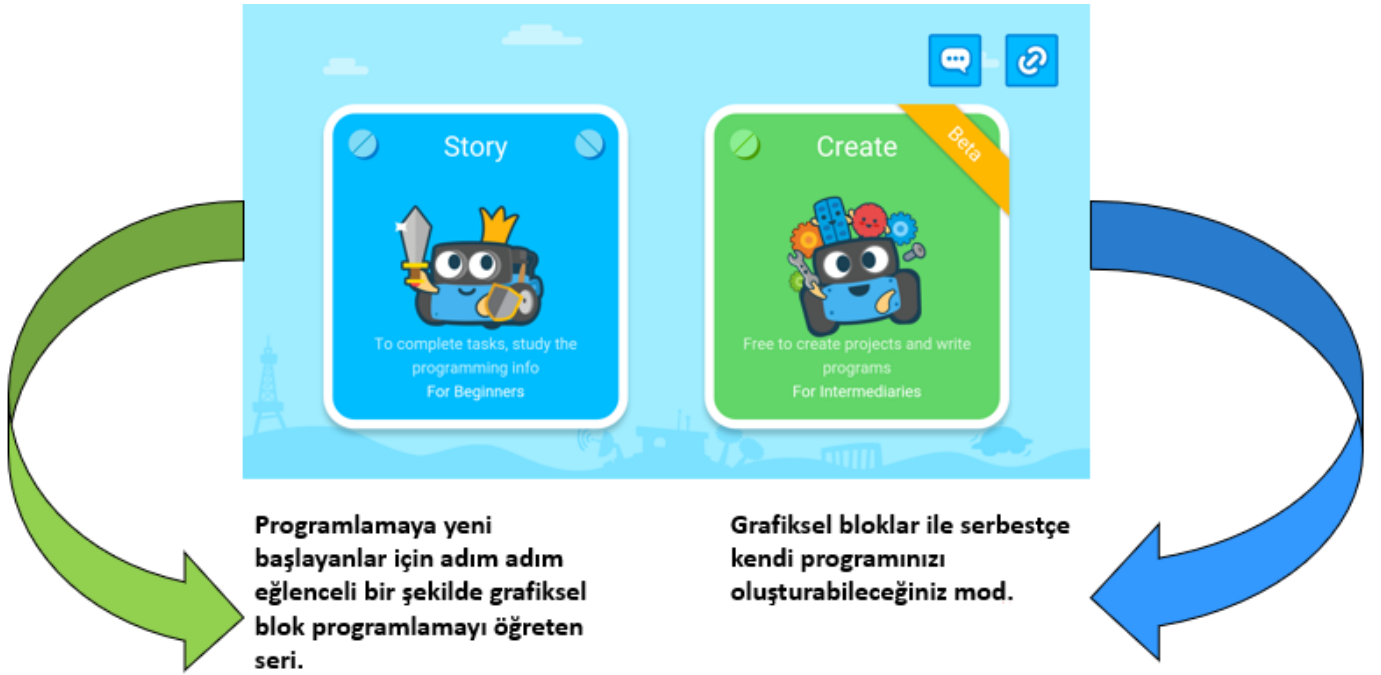
First, we turn on the Bluetooth connection on our phone or tablet. Then, we activate our Bluetooth-enabled mBot.



The connection is completed when we bring the phone closer



After the connection is completed, we reach the main screen of the program.



## Now Let's Get to Know Our Commands

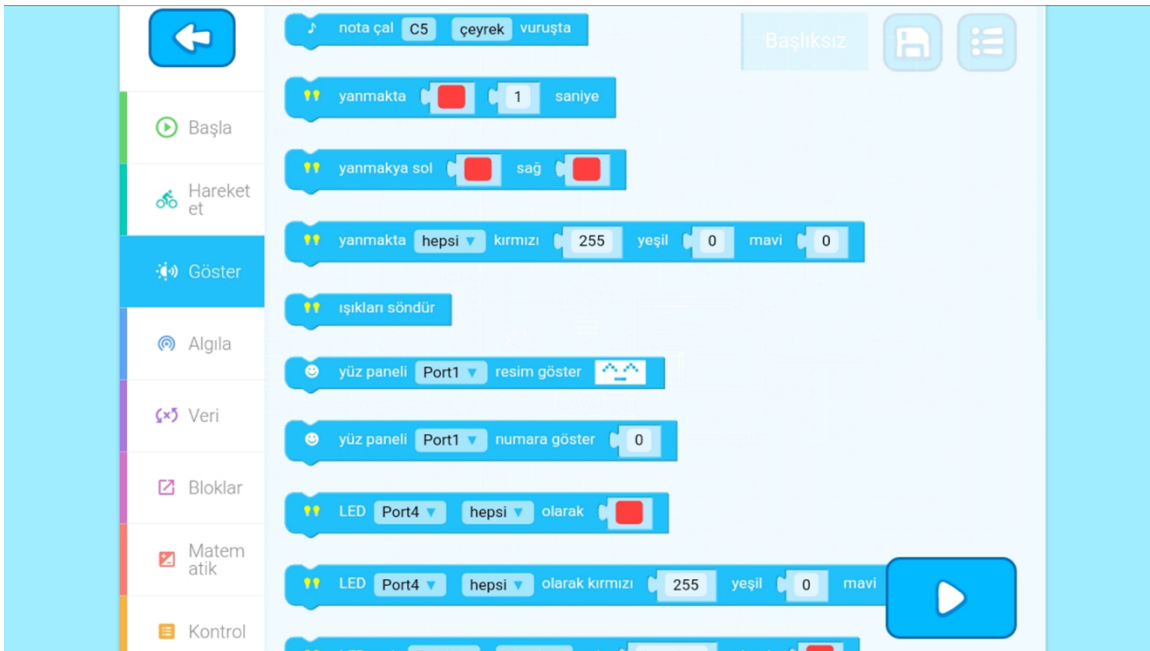
### Motion Commands

Command lines for moving our MakeBlock forward, backward, right, and left.



### Display Commands

Command lines for adjusting the lights and sounds of our MakeBlock.

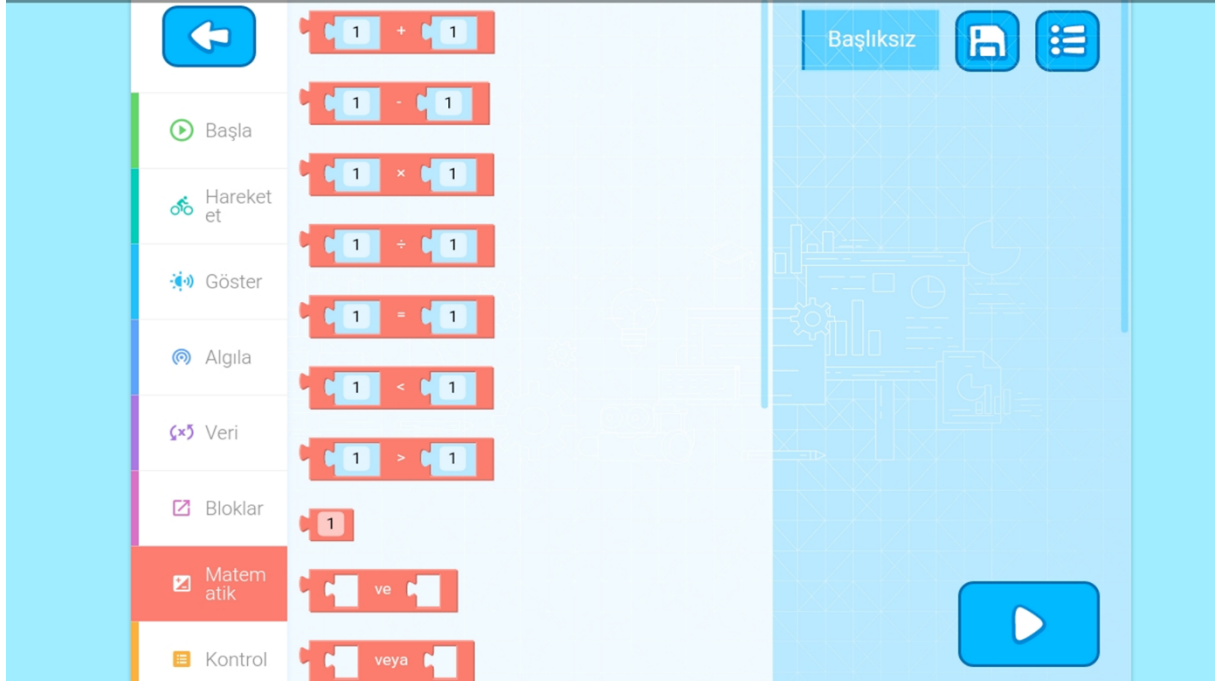


## Sensing Commands

Command lines for detecting situations such as lifting our MakeBlock, obstacles in front of it, etc.

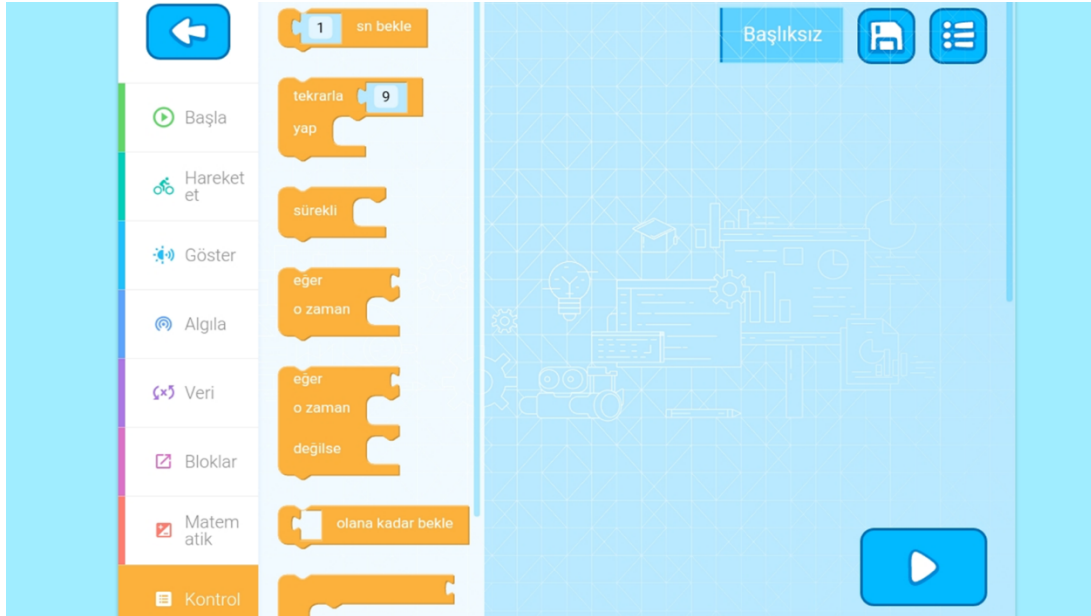
## Math Commands

Command lines containing logical commands.



### Control Commands

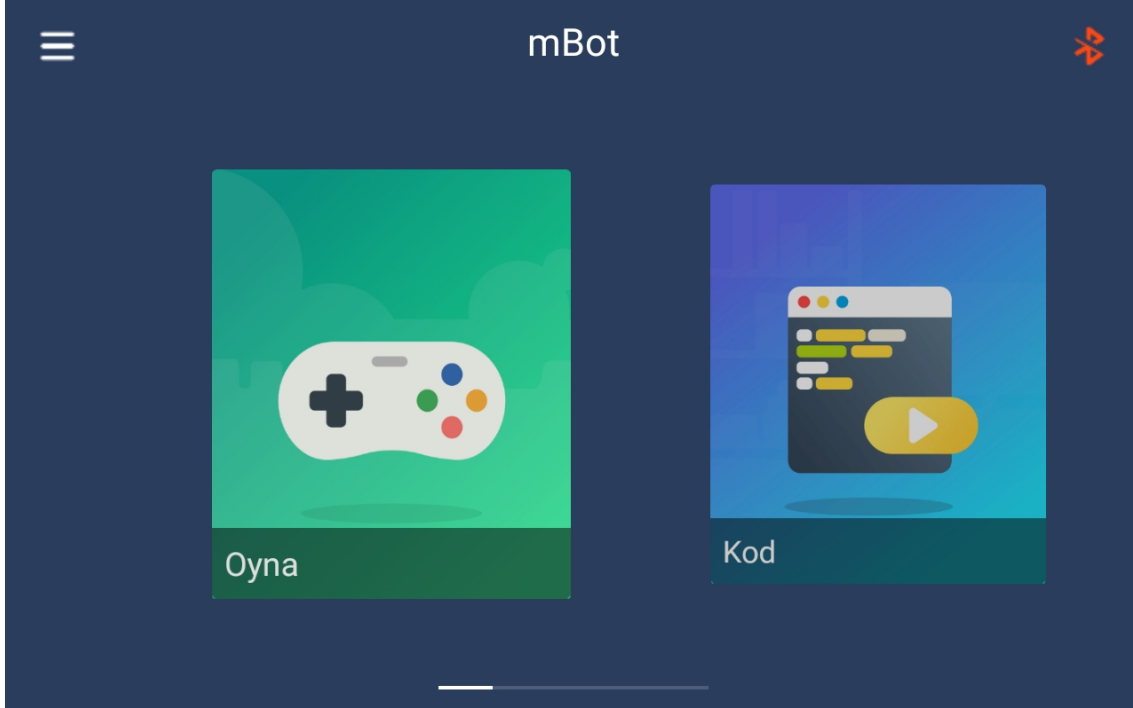
Command lines for time, repetition, if statements, etc.



### mBlock Menü



In the mBlock application, we have a menu divided into 4 sections. Here, we have the 'Play' section where we can move freely, the 'Code' section where we can write code and make



movements, the 'Do' section, and finally the 'Create' section.



### Free Movement

The interface that allows us to use our MakeBlock freely."

