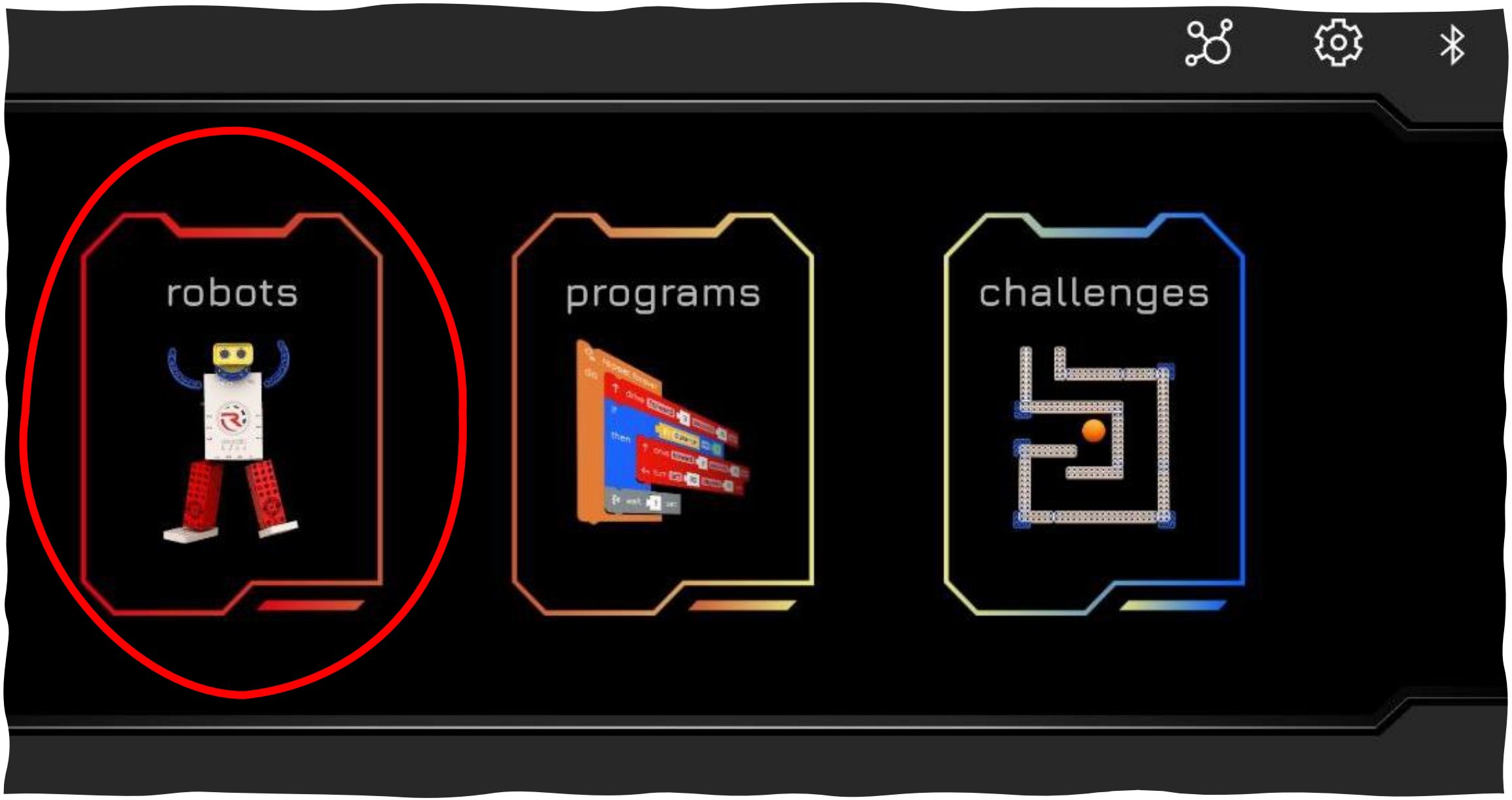
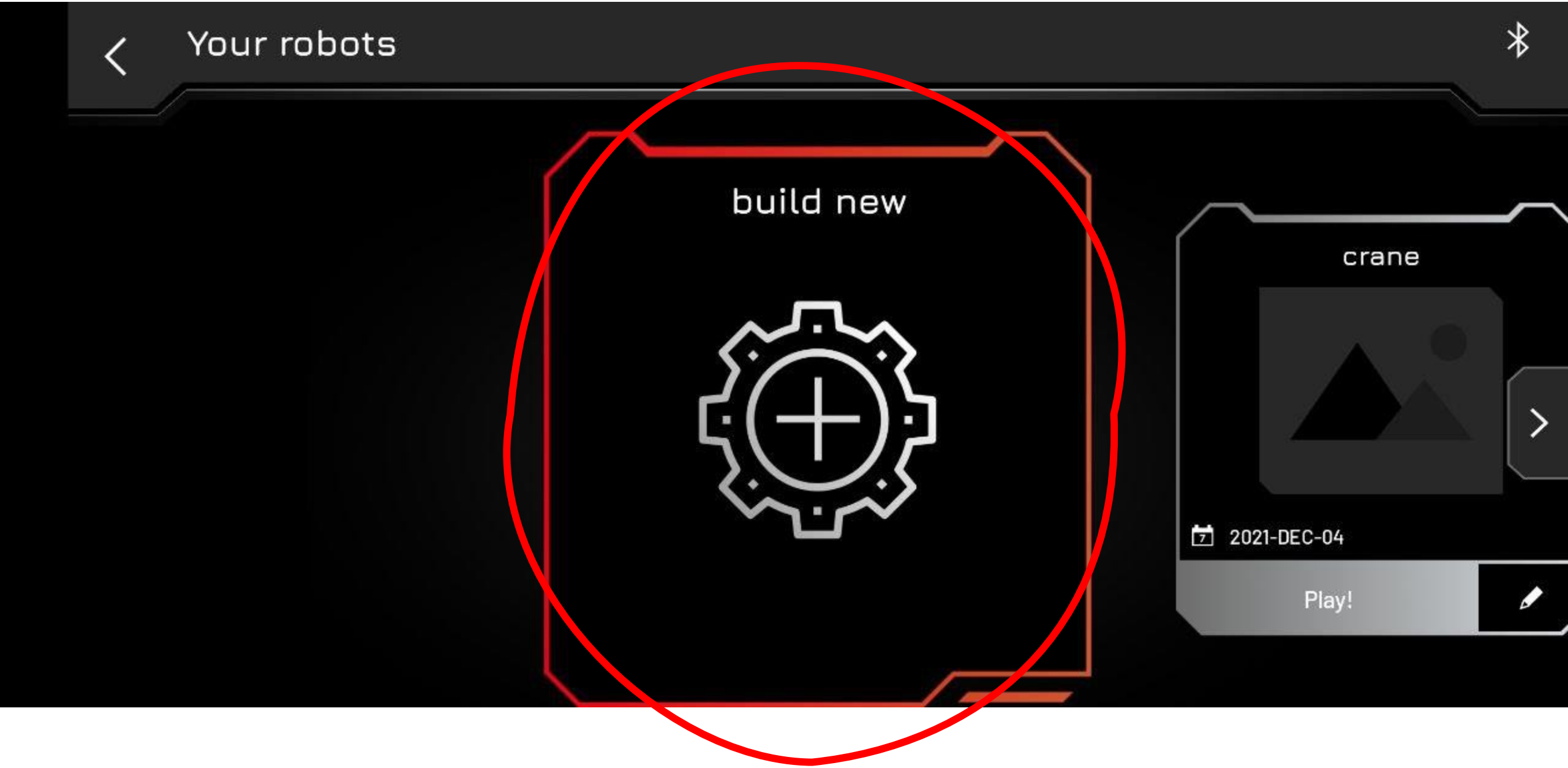
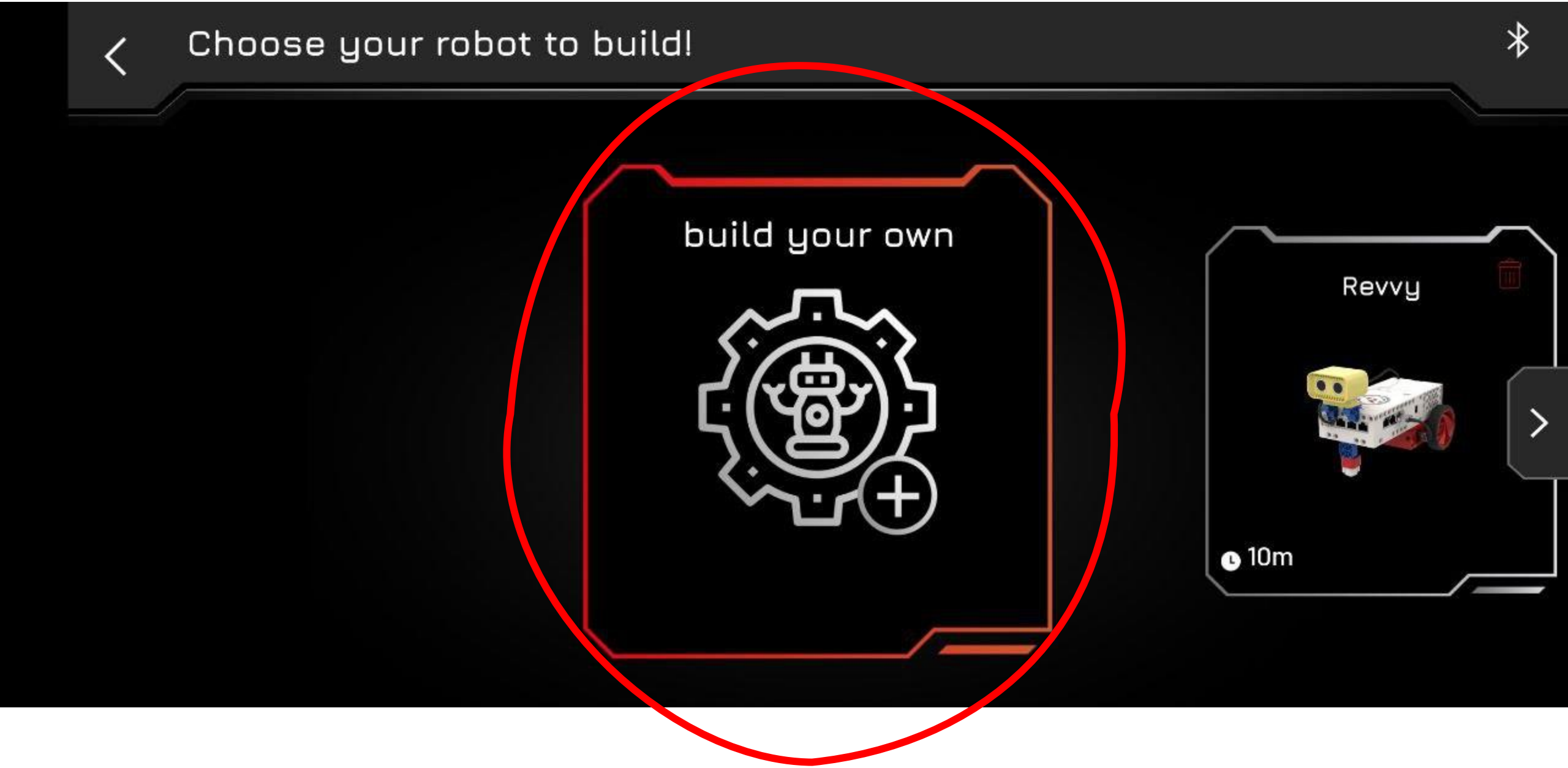
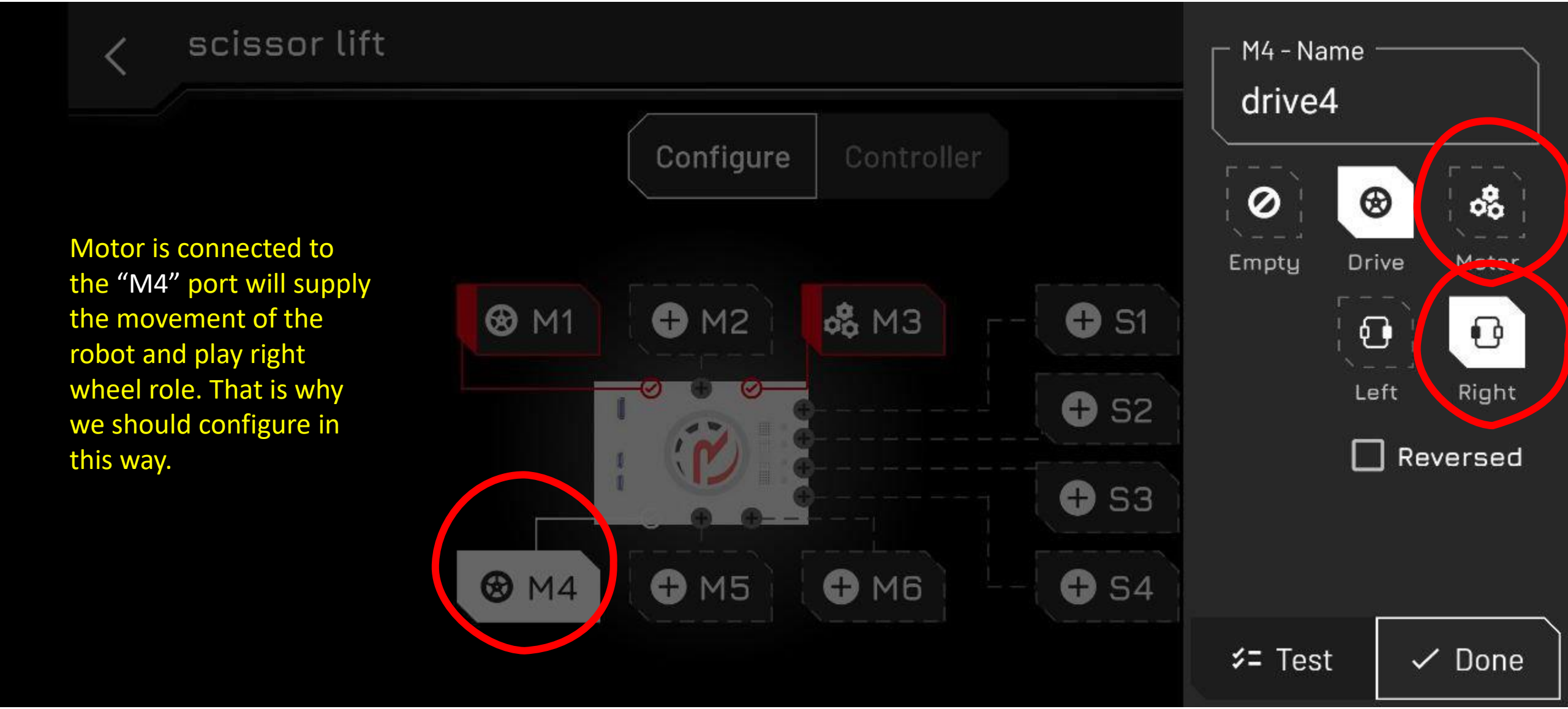
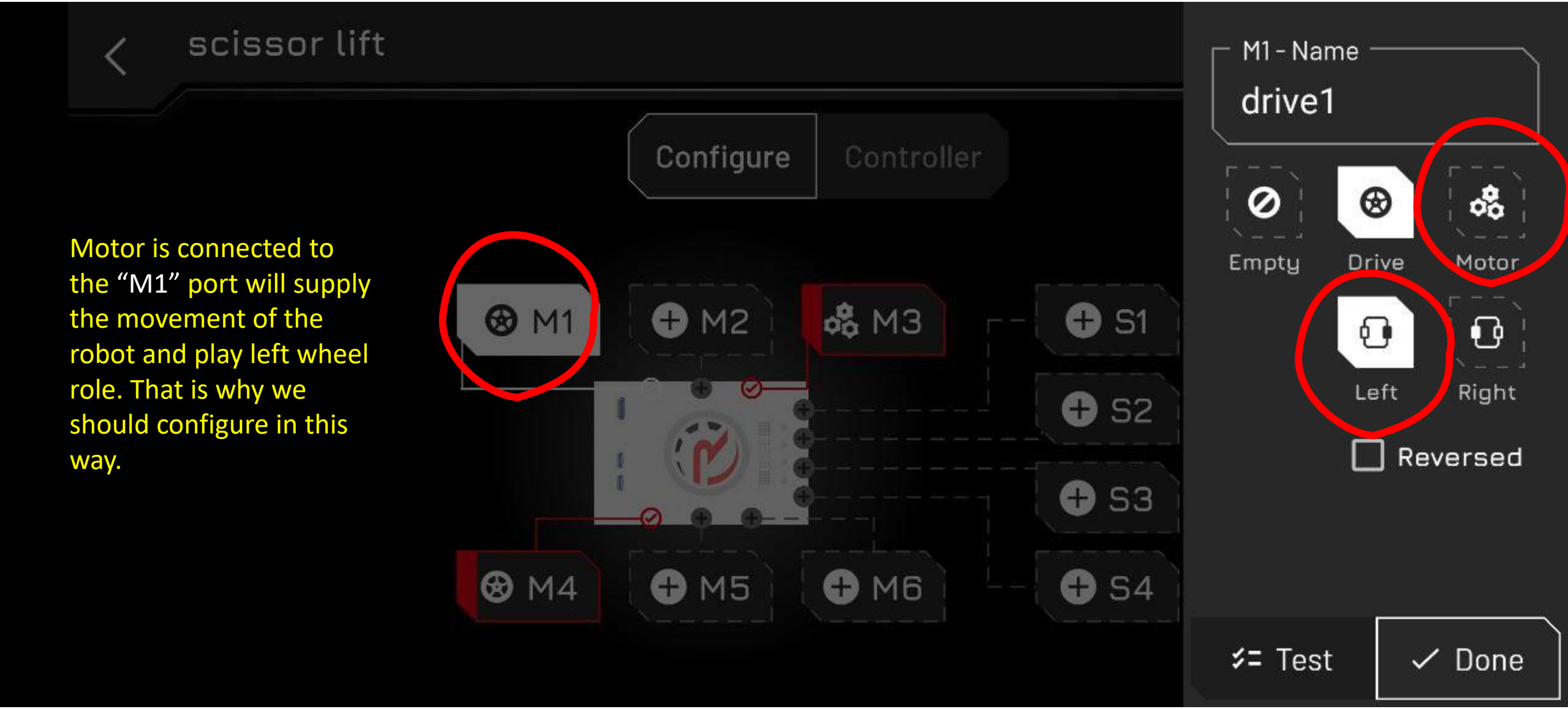

robots
programs
challenges


Your robots
build new
crane
2021-DEC-04
Play!

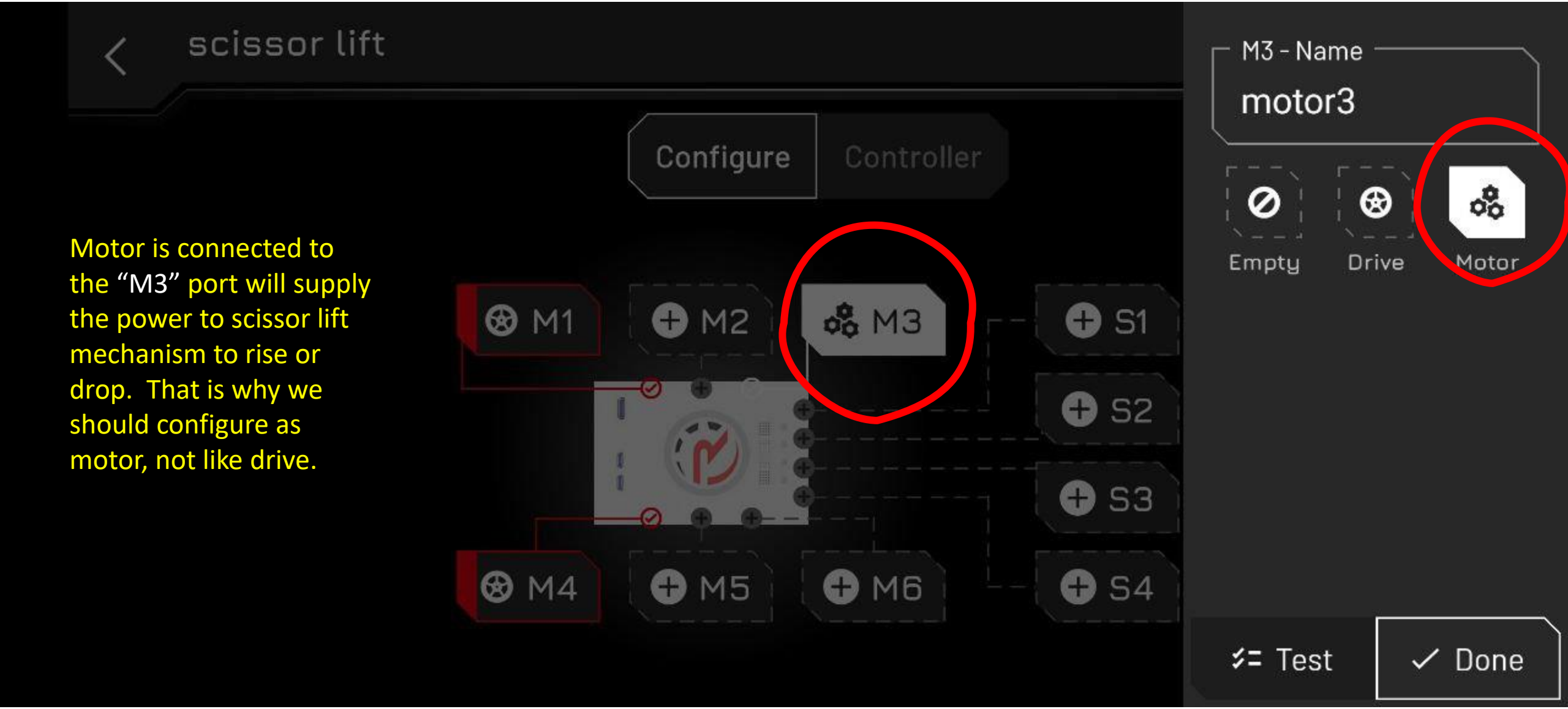

Choose your robot to build!
build your own
Revvy
10m



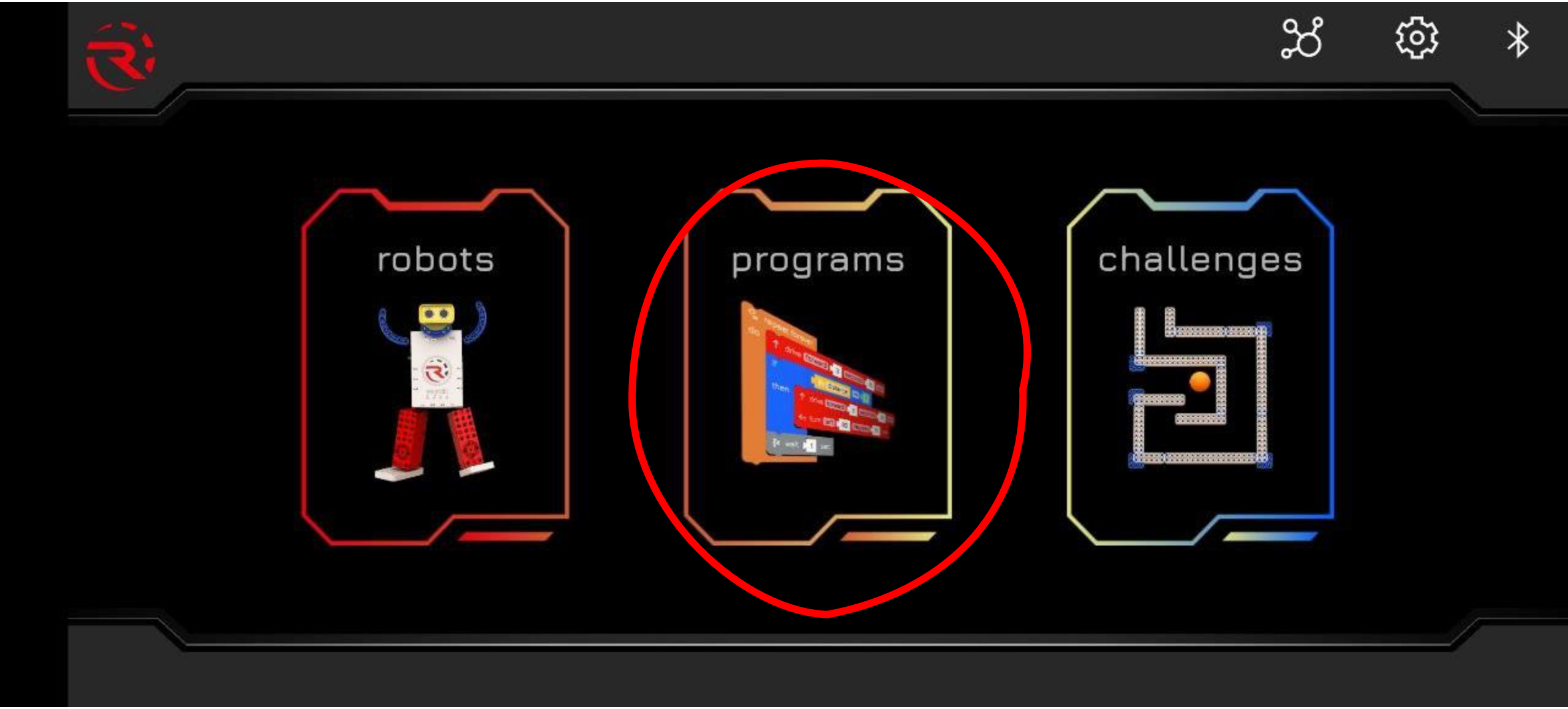
Motor is connected to the “M4” port will supply the movement of the robot and play right wheel role. That is why we should configure in this way.

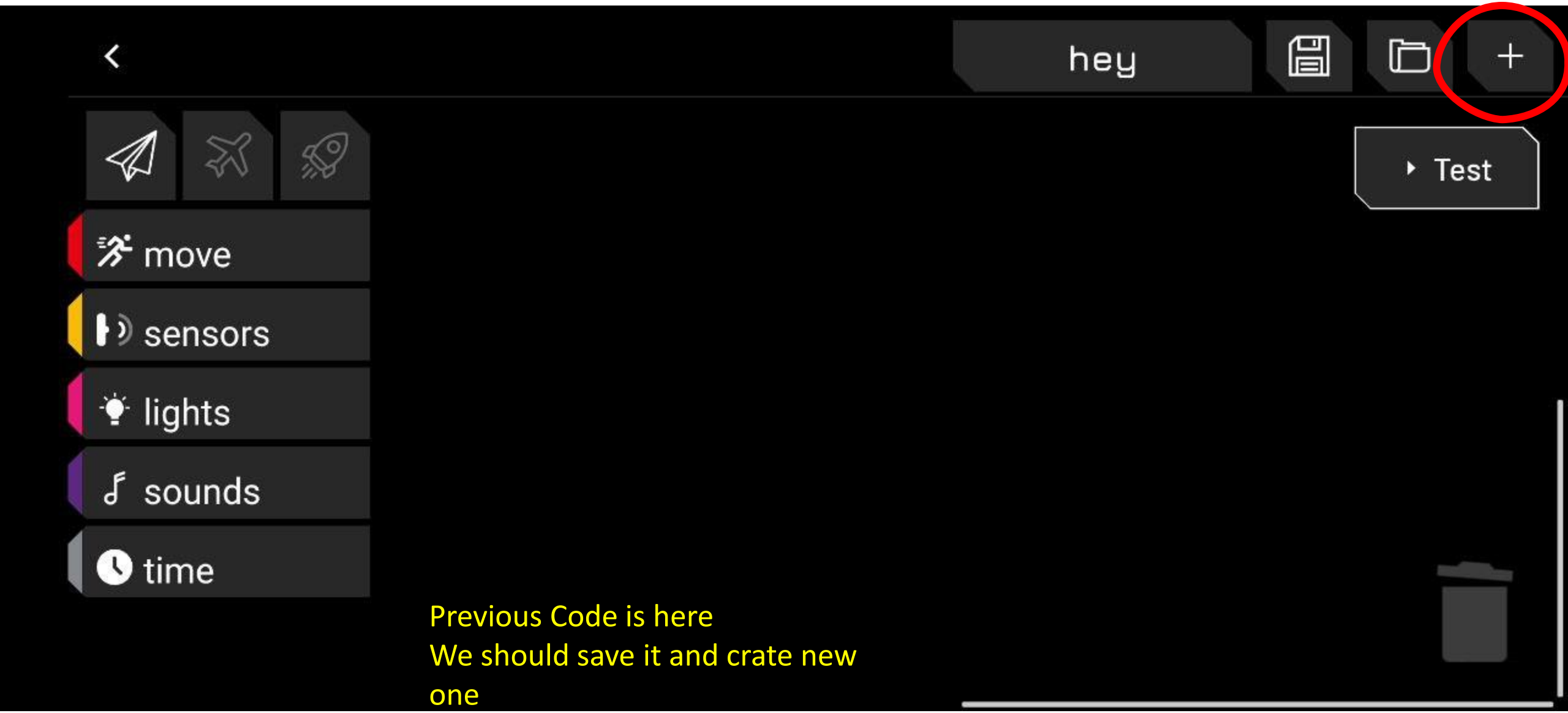


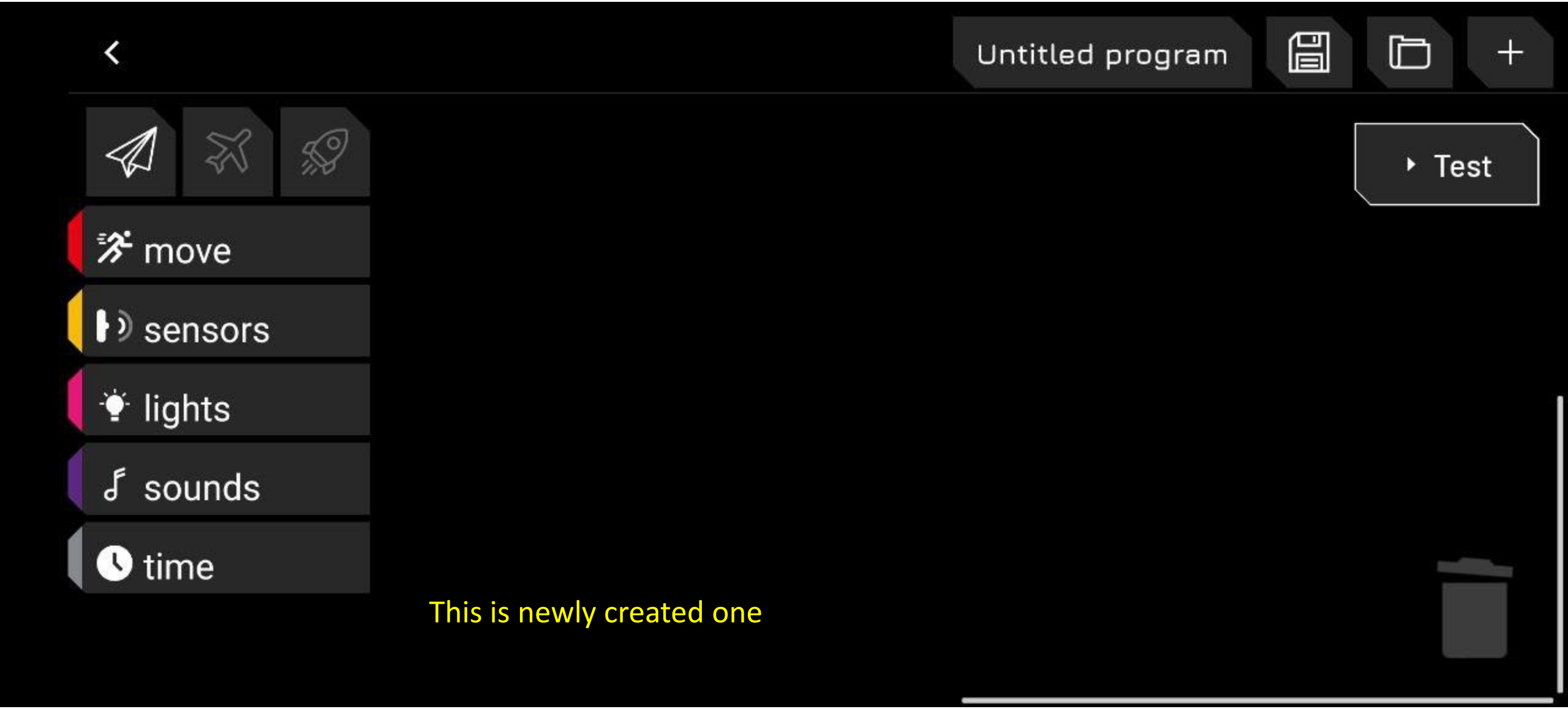
Motor is connected to the “M1” port will supply the movement of the robot and play left wheel role. That is why we should configure in this way.

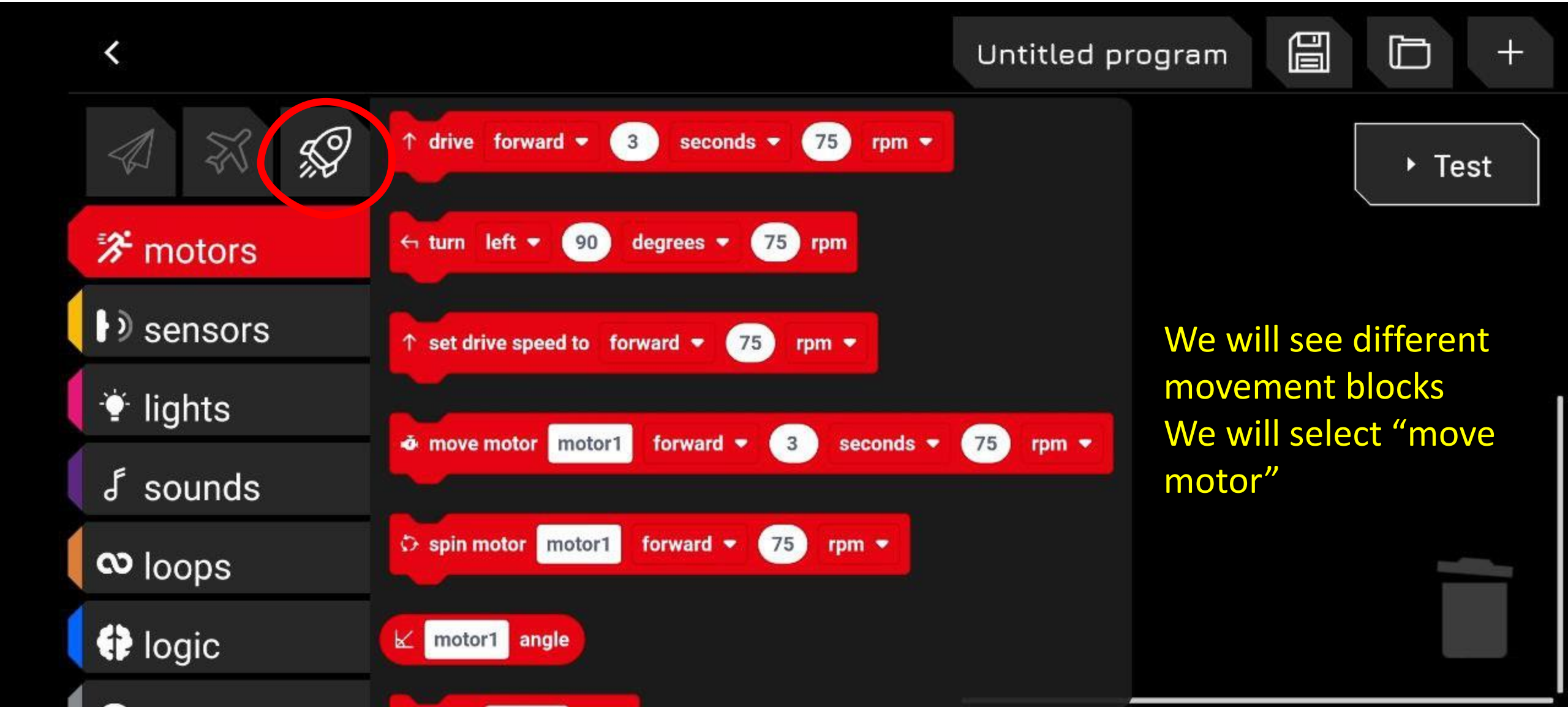


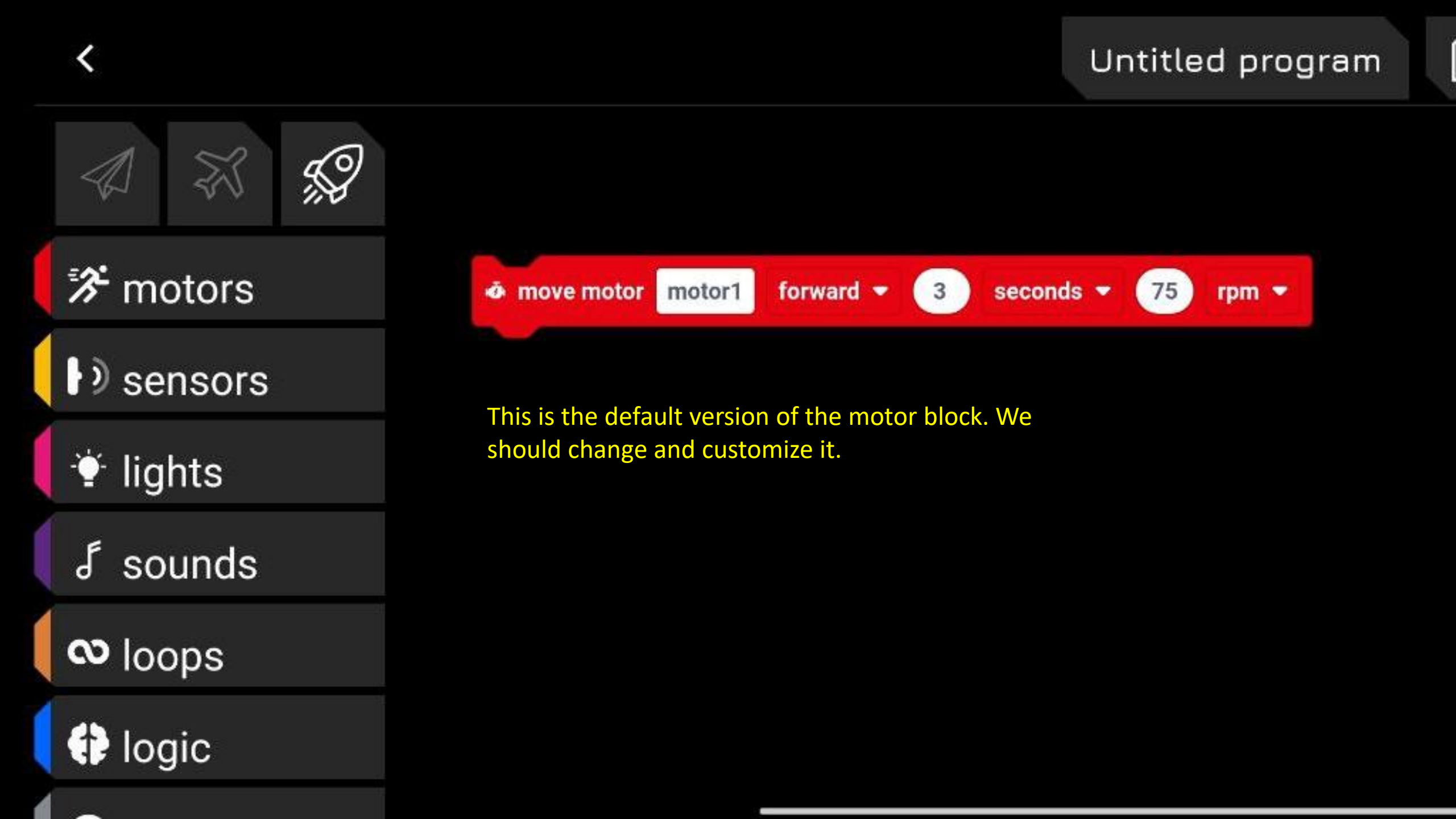
Motor is connected to the “M3” port will supply the power to scissor lift mechanism to rise or drop. That is why we should configure as motor, not like drive.

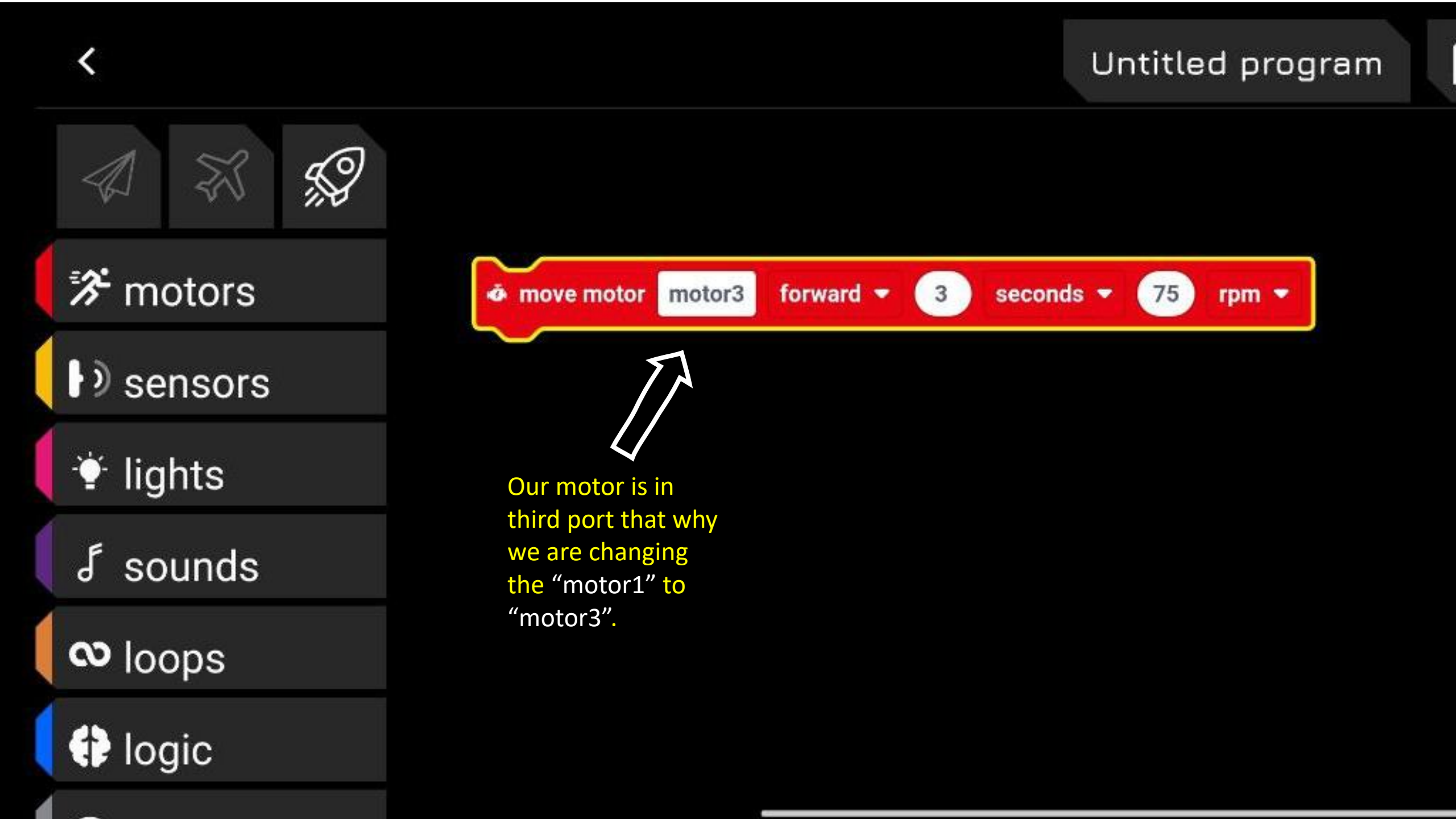

robots
programs
challenges

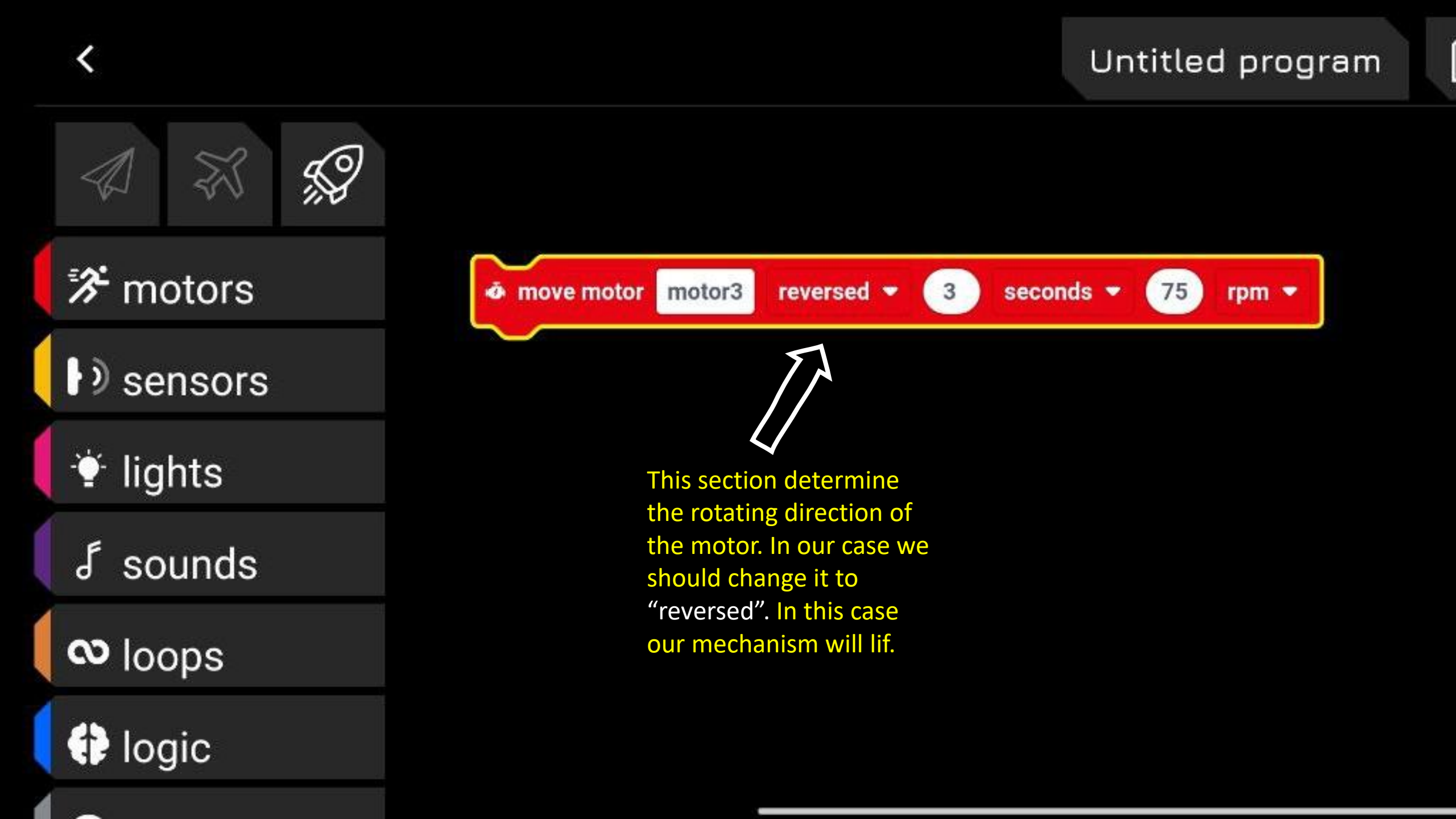

hey
Test
move
sensors
lights
sounds
time
Previous Code is here
We should save it and crate new one

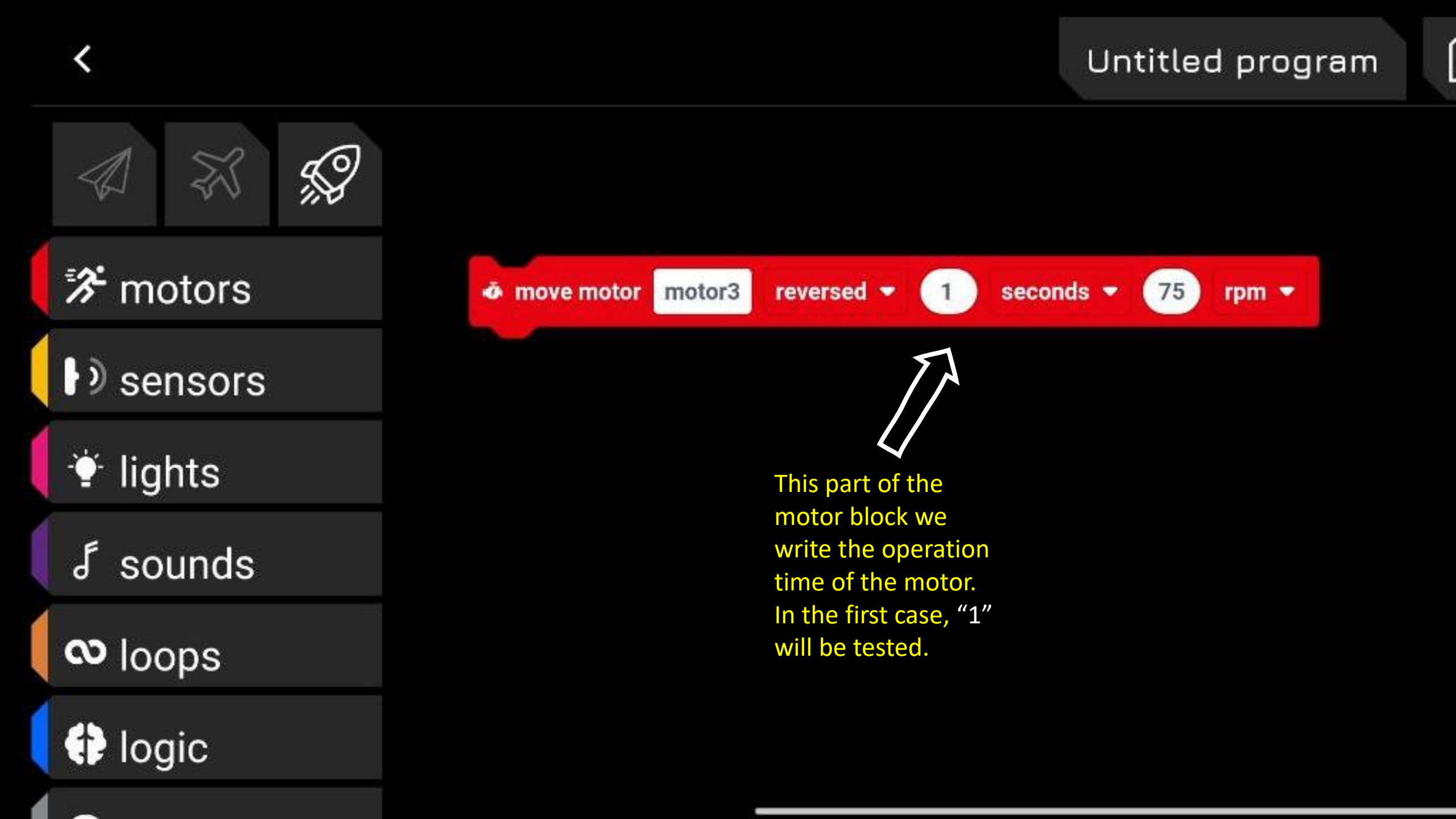

Untitled program
Test
move
sensors
lights
sounds
time
This is newly created one


Untitled program
Test
motors
sensors
lights
sounds
loops
logic
drive forward 3 seconds 75 rpm
turn left 90 degrees 75 rpm
set drive speed to forward 75 rpm
move motor motor1 forward 3 seconds 75 rpm
spin motor motor1 forward 75 rpm
motor1 angle
We will see different movement blocks
We will select “move motor”


Untitled program
motors
sensors
lights
sounds
loops
logic
move motor
motor1
forward
3
seconds
75
rpm
This is the default version of the motor block. We should change and customize it.


Untitled program
motors
sensors
lights
sounds
loops
logic
move motor
motor3
forward
3
seconds
75
rpm
Our motor is in third port that why we are changing the “motor1” to “motor3”.

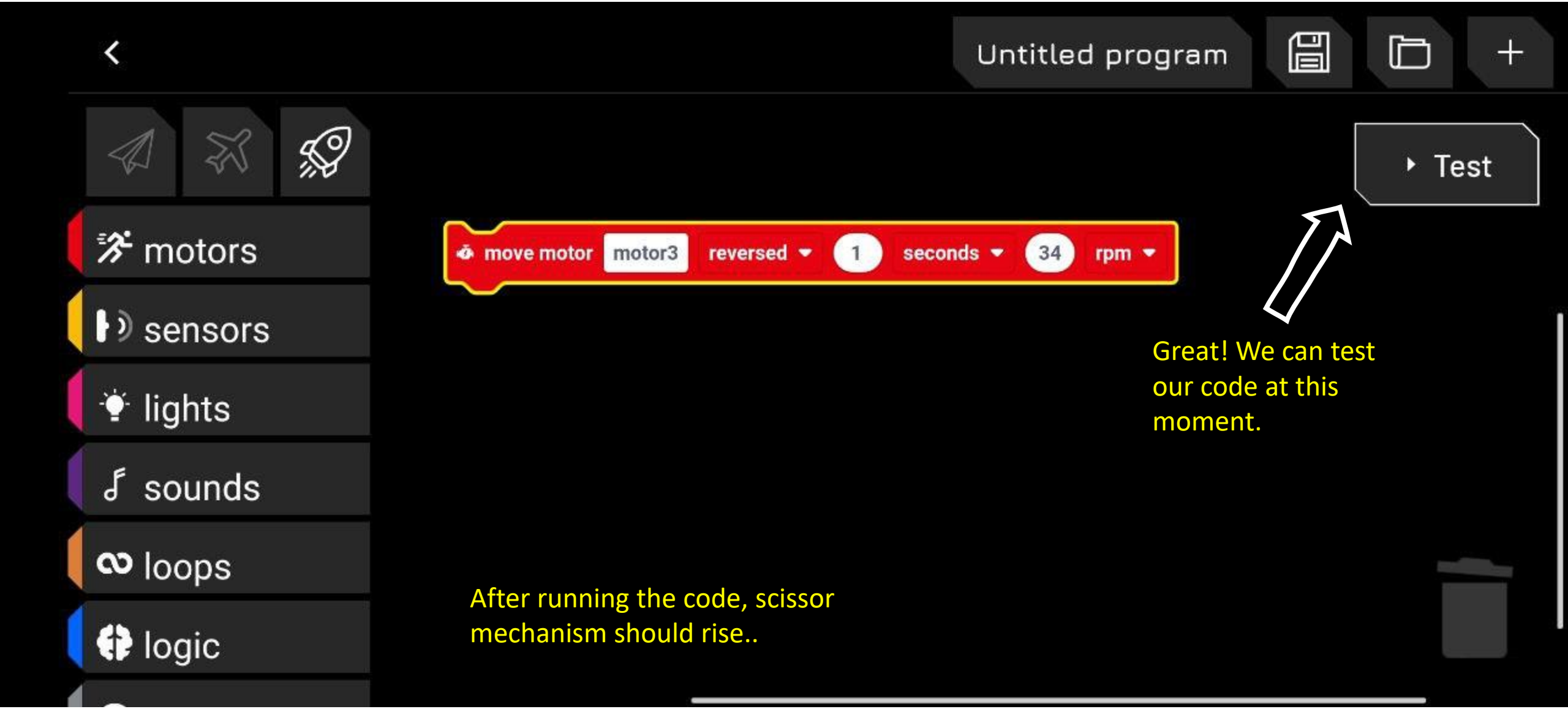

Untitled program
motors
sensors
lights
sounds
loops
logic
move motor
motor3
reversed
3
seconds
75
rpm
This section determine the rotating direction of the motor. In our case we should change it to “reversed”. In this case our mechanism will lif.


Untitled program
motors
sensors
lights
sounds
loops
logic
move motor
motor3
reversed
1
seconds
75
rpm
This part of the motor block we write the operation time of the motor. In the first case, “1” will be tested.

Untitled program

motors
sensors
lights
sounds
loops
logic

This section defines the speed of motor. It should be decreased to “34 rpm”. Higher speed can lead to unstable movement of the scissor mechanism.


Untitled program
Test
motors
sensors
lights
sounds
loops
logic
move motor
motor3
reversed
1
seconds
34
rpm
Great! We can test our code at this moment.
After running the code, scissor mechanism should rise..

Untitled program

motors
sensors
lights
sounds
loops
logic

After rising the scissor mechanism, we should drop it. That is why the direction of the movement should be changed from “reversed” to “forward”

Untitled program

motors

sensors

lights

sounds

loops

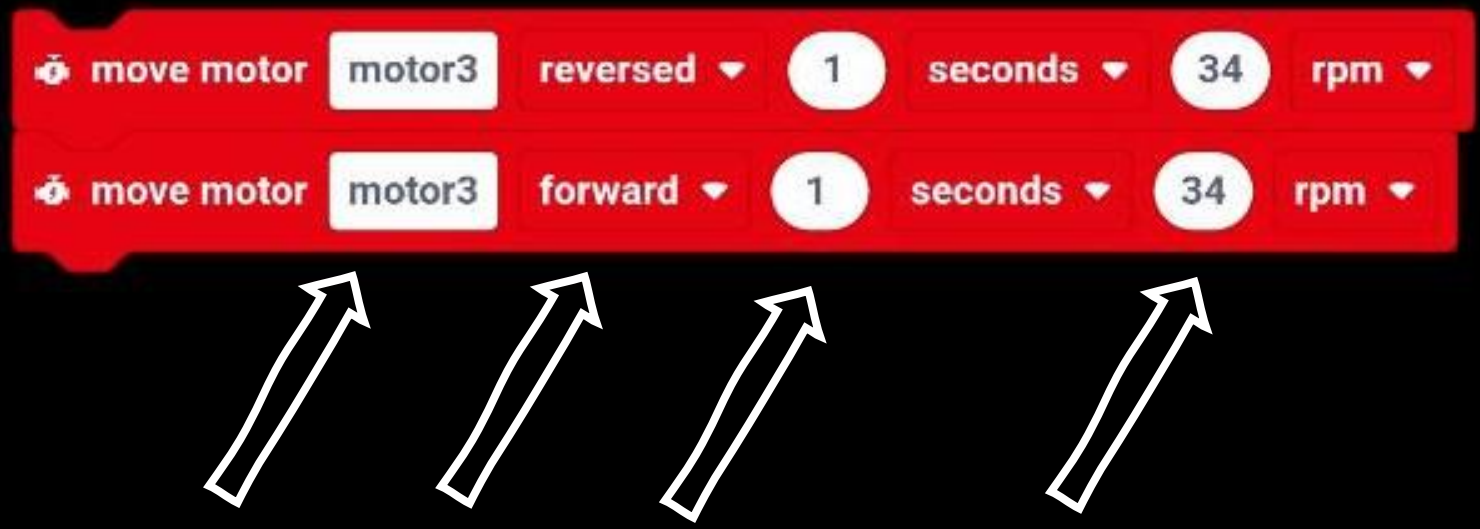
logic

Now, we will write a code which will rise and drop the scissor mechanism.

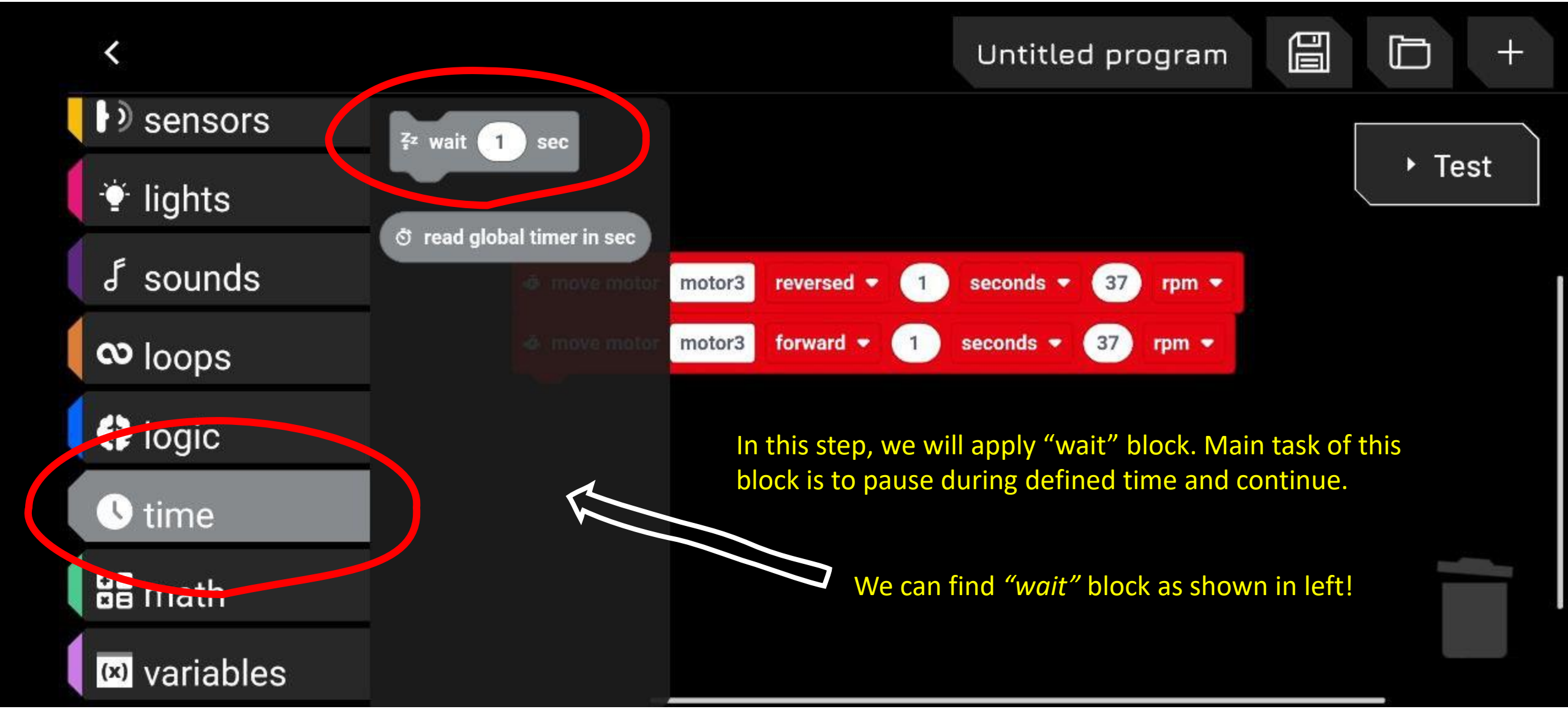
Second motor block has been added to supply drop movement. Before testing the code, we should customize it.

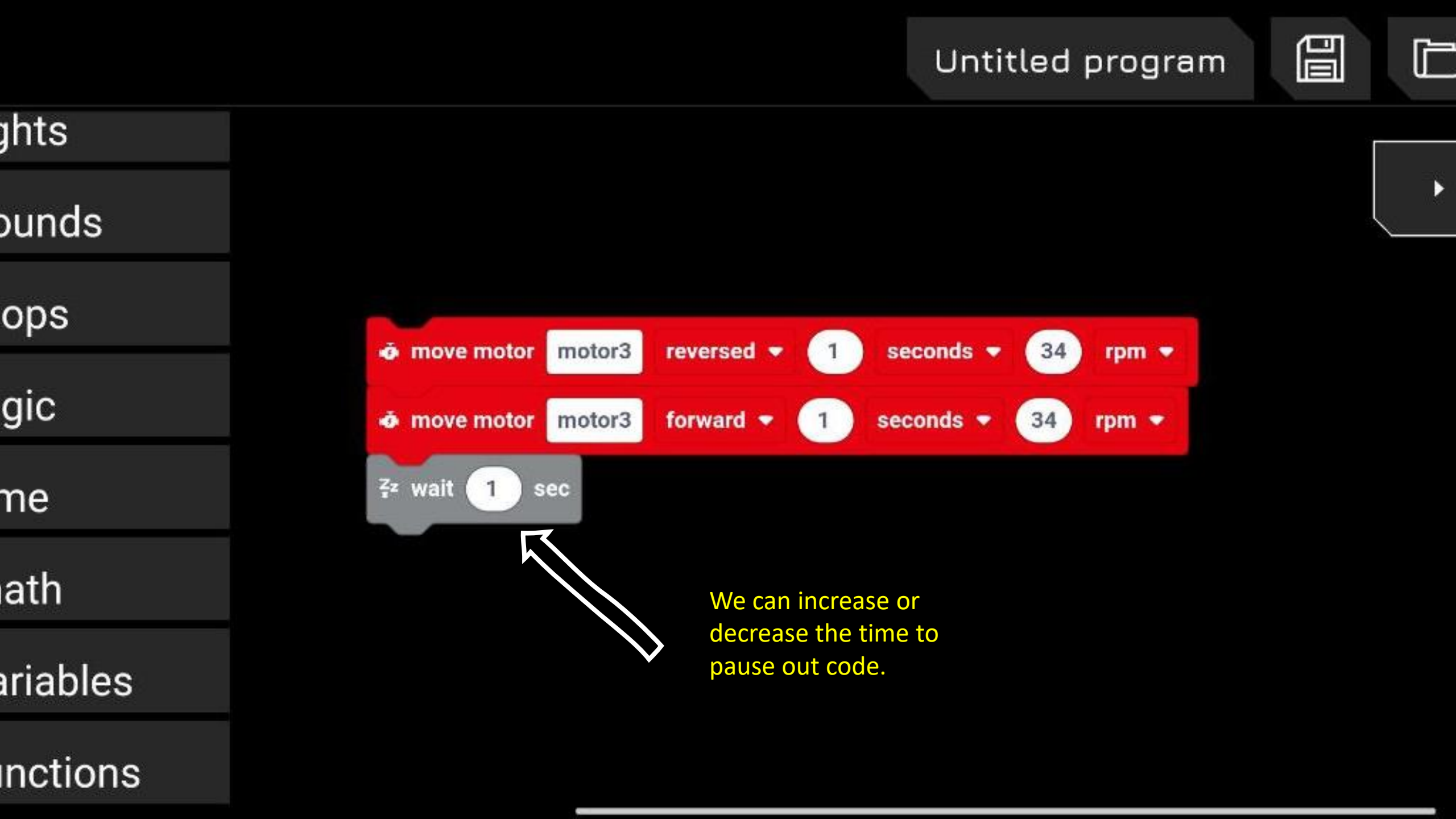
Untitled program

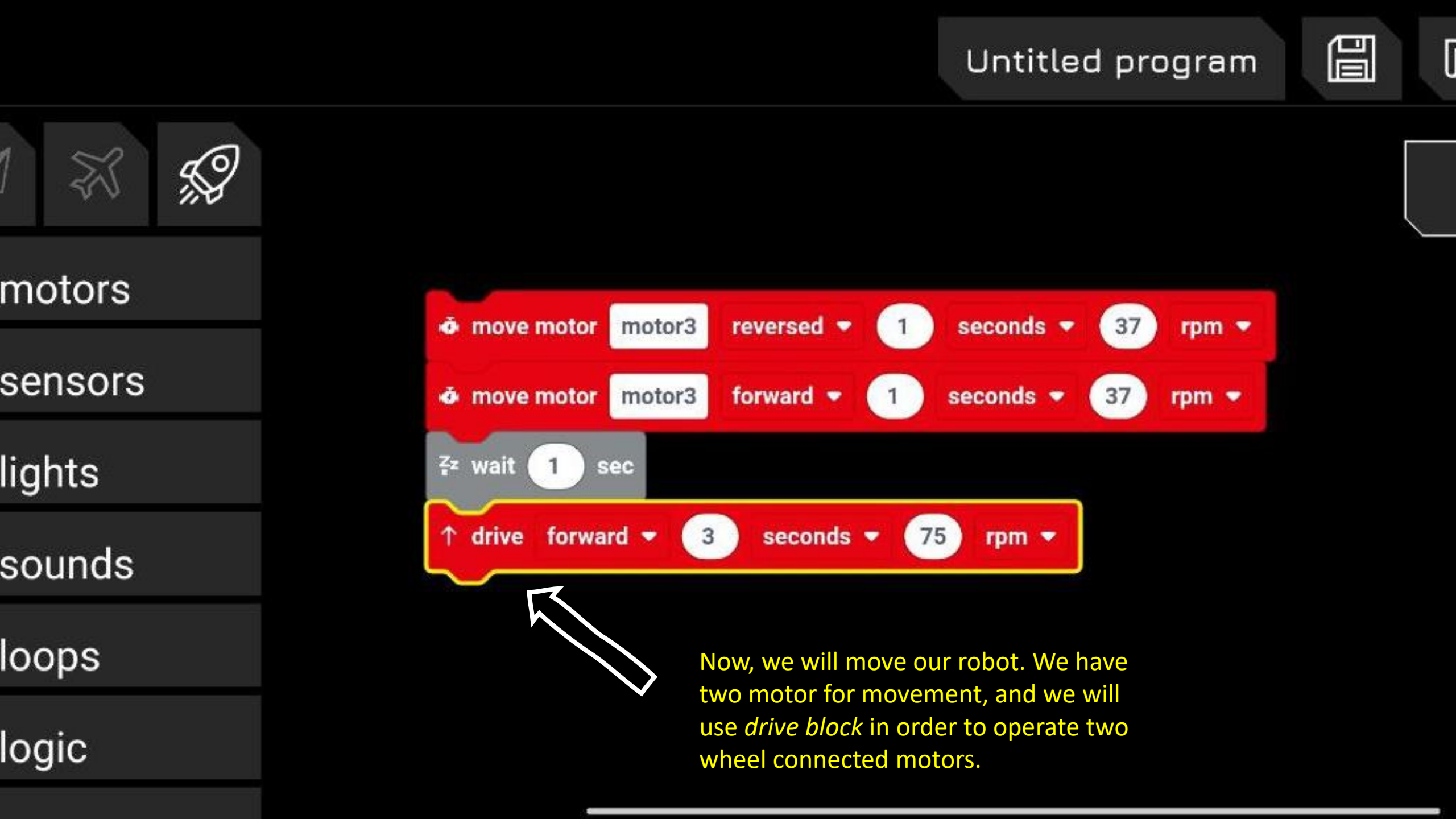
motors
sensors
lights
sounds
loops
logic

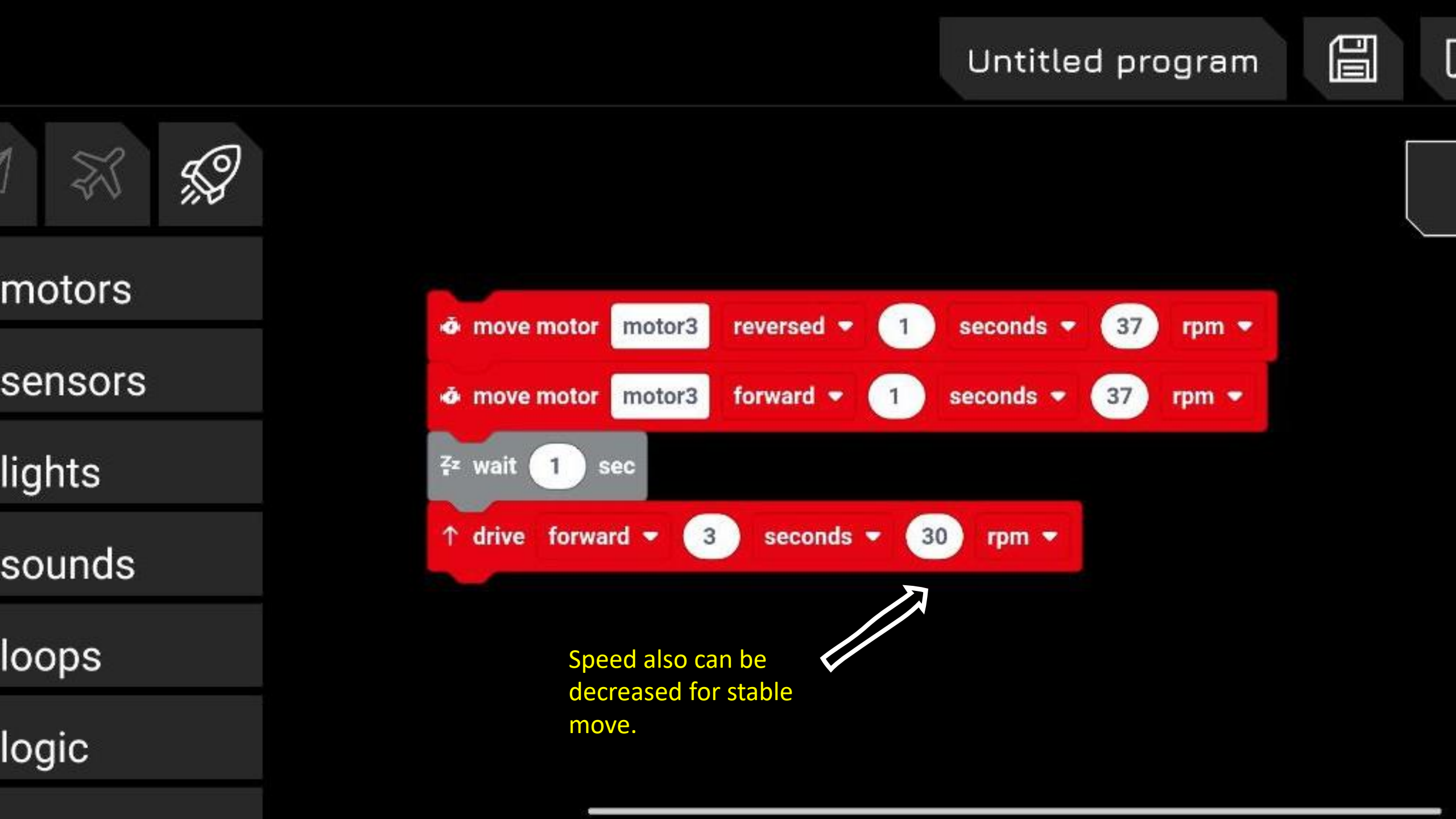


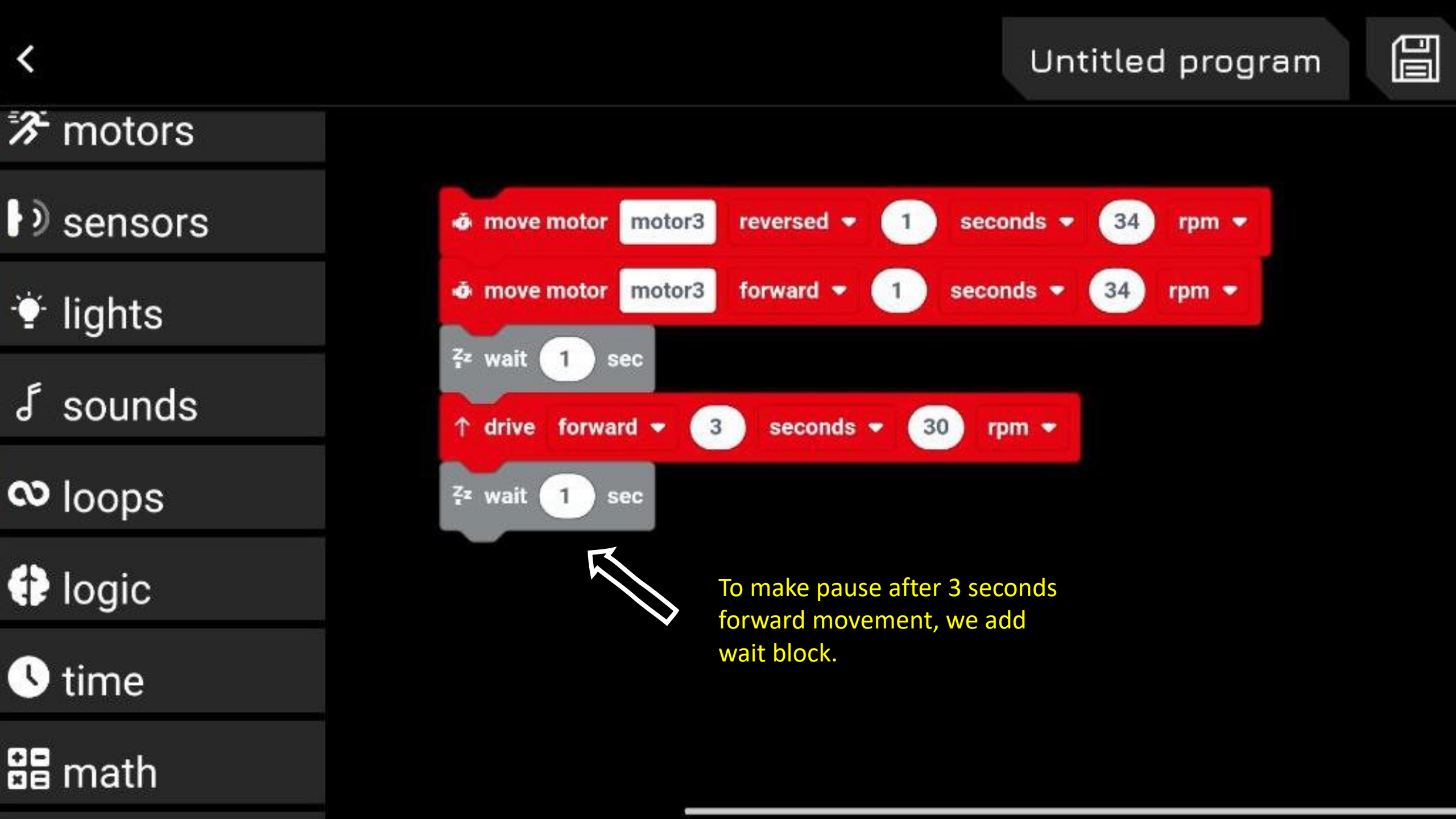
After changing important point, our code is ready for test!

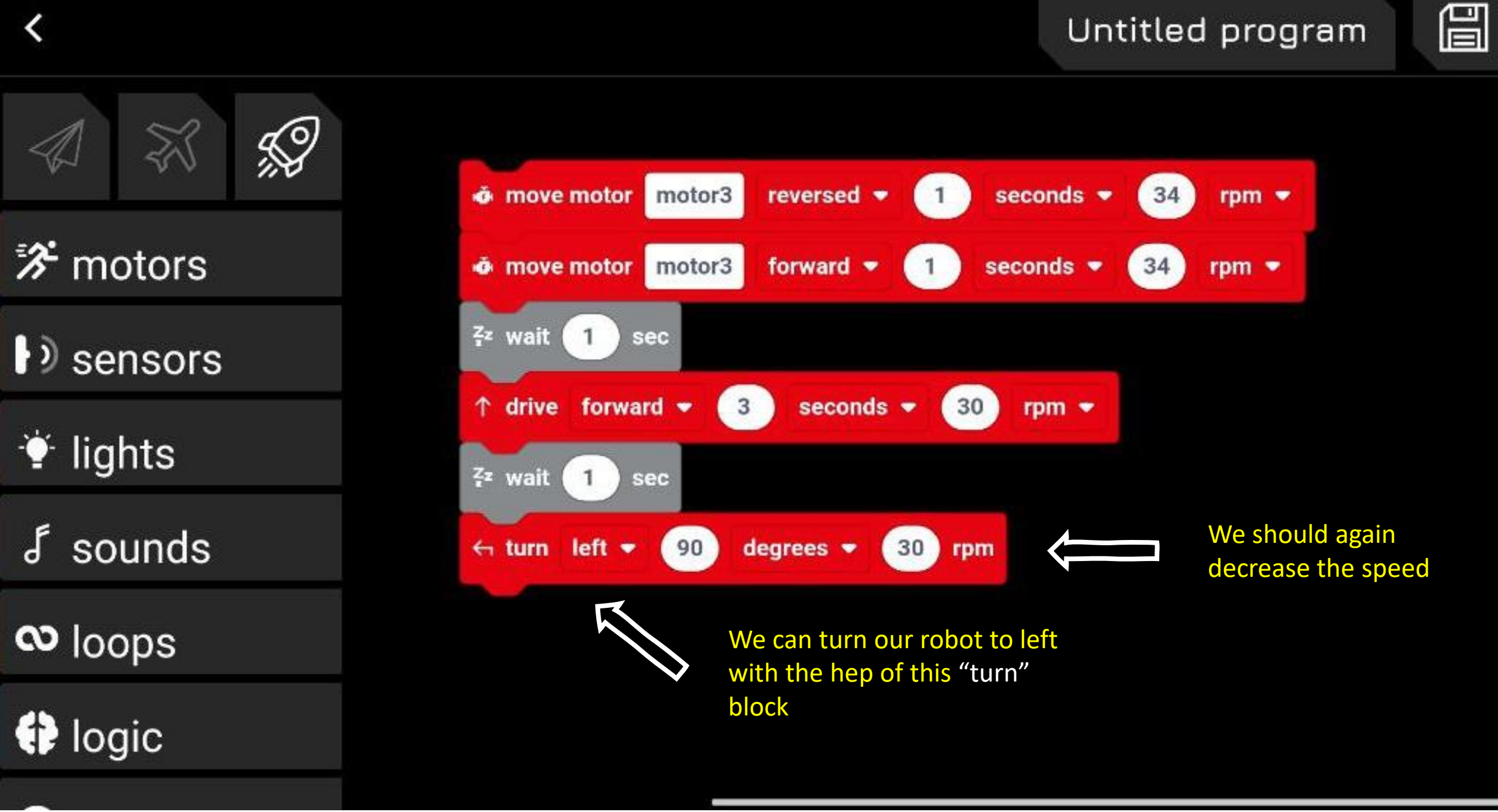

Untitled program
Test
sensors
lights
sounds
loops
logic
time
math
variables
wait 1 sec
read global timer in sec
motor3 reversed 1 seconds 37 rpm
motor3 forward 1 seconds 37 rpm
In this step, we will apply “wait” block. Main task of this block is to pause during defined time and continue.
We can find *“wait”* block as shown in left!


Untitled program
ghts
ounds
ops
gic
me
ath
ariables
unctions
move motor motor3 reversed 1 seconds 34 rpm
move motor motor3 forward 1 seconds 34 rpm
wait 1 sec
We can increase or decrease the time to pause out code.


Untitled program
motors
sensors
lights
sounds
loops
logic
move motor motor3 reversed 1 seconds 37 rpm
move motor motor3 forward 1 seconds 37 rpm
wait 1 sec
drive forward 3 seconds 75 rpm
Now, we will move our robot. We have two motor for movement, and we will use *drive block* in order to operate two wheel connected motors.


Untitled program
motors
sensors
lights
sounds
loops
logic
move motor motor3 reversed 1 seconds 37 rpm
move motor motor3 forward 1 seconds 37 rpm
wait 1 sec
drive forward 3 seconds 30 rpm
Speed also can be decreased for stable move.


Untitled program
motors
sensors
lights
sounds
loops
logic
time
math
move motor motor3 reversed 1 seconds 34 rpm
move motor motor3 forward 1 seconds 34 rpm
wait 1 sec
drive forward 3 seconds 30 rpm
wait 1 sec
To make pause after 3 seconds forward movement, we add wait block.


Untitled program
motors
sensors
lights
sounds
loops
logic
move motor motor3 reversed 1 seconds 34 rpm
move motor motor3 forward 1 seconds 34 rpm
wait 1 sec
drive forward 3 seconds 30 rpm
wait 1 sec
turn left 90 degrees 30 rpm
We should again decrease the speed
We can turn our robot to left with the hep of this “turn” block