

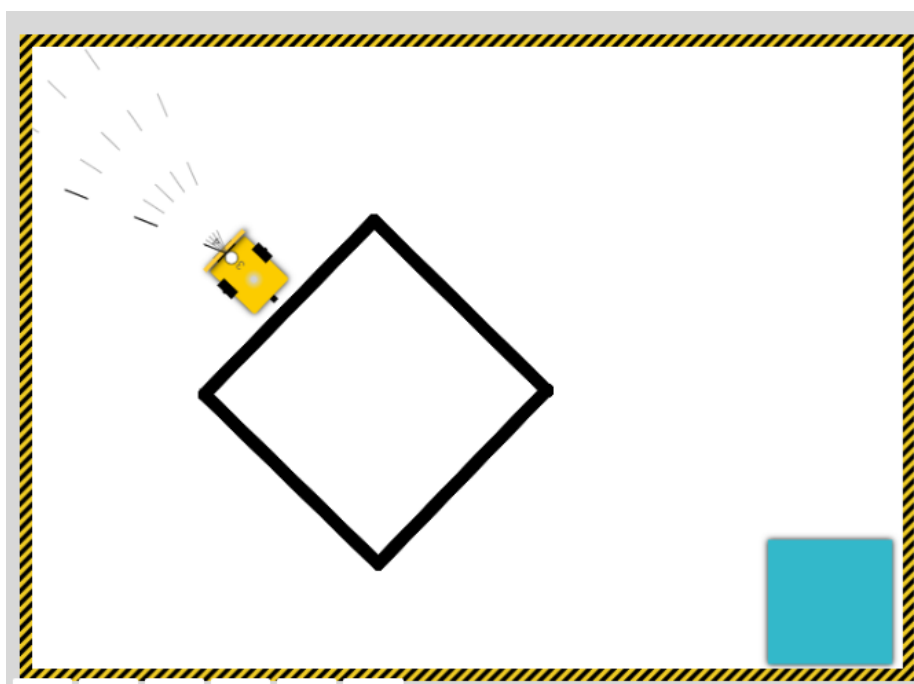
LESSON 1.

1. Draw a square of 50 cm

<pre>+ porneste arata datele senzoriului actionare motor inainte viteza % 30 distanta cm 50 intoarce dreapta viteza % 30 grad 90 actionare motor inainte viteza % 30 distanta cm 50 intoarce dreapta viteza % 30 grad 90 actionare motor inainte viteza % 30 distanta cm 50 </pre>	<pre>+ start show sensor data drive forwards speed % 30 distance cm 50 turn right speed % 30 degree 90 drive forwards speed % 30 distance cm 50 turn right speed % 30 degree 90 drive forwards speed % 30 distance cm 50 </pre>
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2. Draw a square using repetitive commands.

<pre>+ porneste arata datele senzoriului repeta de 4 ori fa actionare motor inainte viteza % 30 distanta cm 20 intoarce dreapta viteza % 30 grad 90 </pre>	<pre>+ start show sensor data repeat 4 times do drive forwards speed % 30 distance cm 20 turn right speed % 30 degree 90 </pre>
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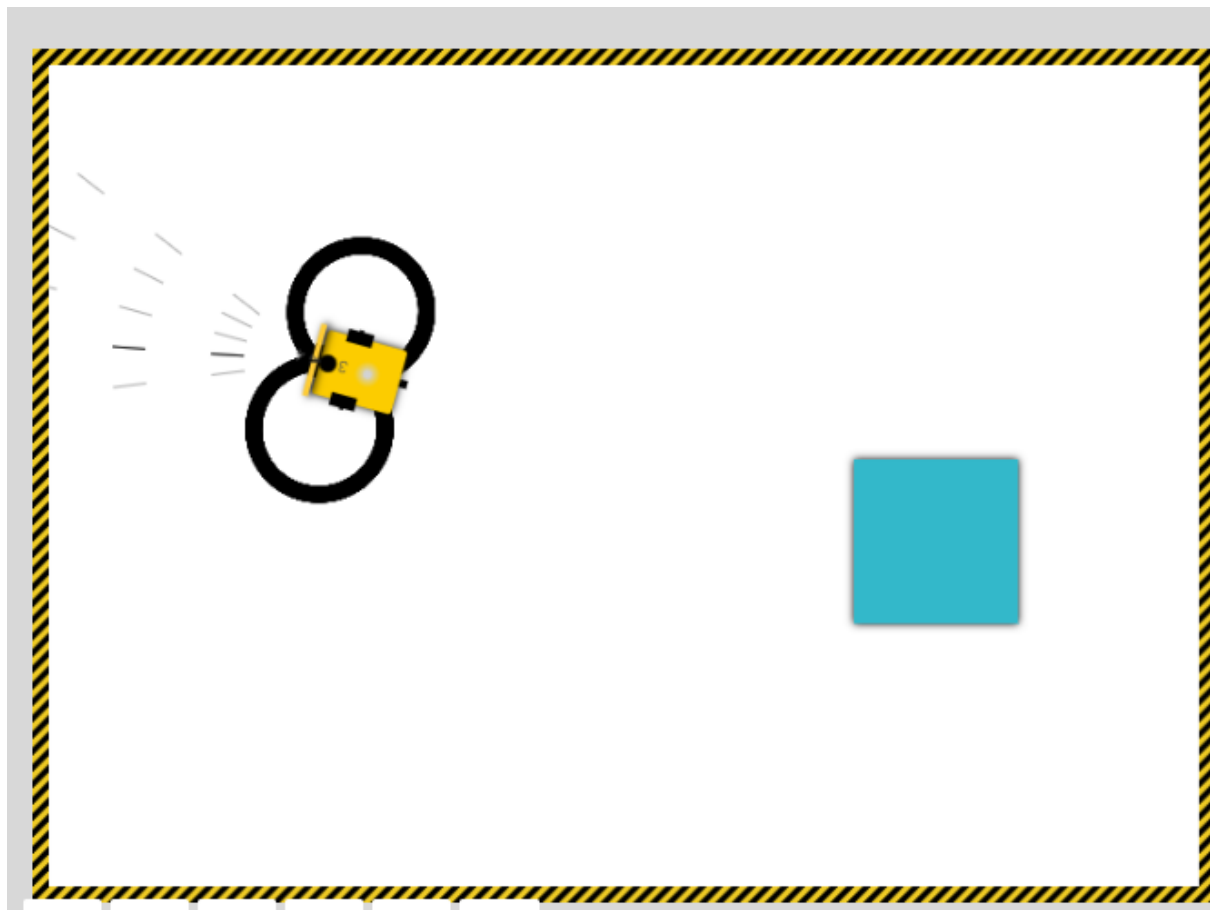


3. Draw a circle:

<pre>+ porneste arata datele senzorului conduce inainte viteza % stanga 10 viteza % dreapta 25 distanța cm 100</pre>	<pre>+ start show sensor data steer forwards speed % left 10 speed % right 25 distance cm 100</pre>
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4. Drawing the number 8:

<pre>+ porneste arata datele senzorului repetă de 4 ori fă conduce inainte viteza % stanga 10 viteza % dreapta 30 distanța cm 20 întoarce dreapta viteza % 30 grad 140 repetă de 4 ori fă conduce inainte viteza % stanga 10 viteza % dreapta 30 distanța cm 20</pre>	<pre>+ start show sensor data repeat 4 times do steer forwards speed % left 10 speed % right 30 distance cm 20 turn right speed % 30 degree 140 repeat 4 times do steer forwards speed % left 10 speed % right 30 distance cm 20</pre>
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LESSON 2.

1. Stop to the obstacle.

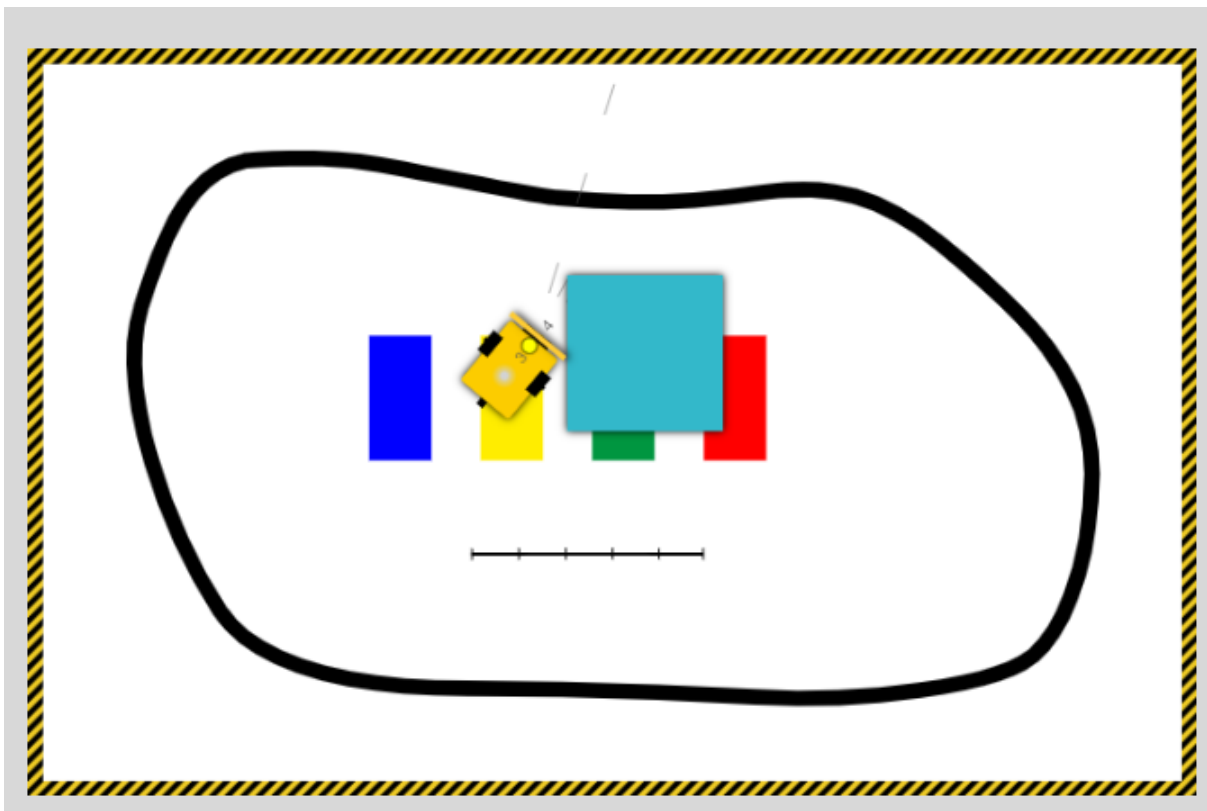
Two Scratch code snippets are shown. The first snippet, titled 'pomeste' with a sub-label 'arata datele senzorului', consists of a 'repetă la infinit' loop containing a 'fă' loop with 'actionare motor' set to 'inainte' and 'viteza %' set to 30. The second snippet, titled 'start' with a sub-label 'show sensor data', consists of a 'repeat indefinitely' loop containing a 'do' block with 'drive forwards' and 'speed %' set to 30.

2. Avoiding collision.

Two Scratch code snippets are shown. The first snippet, titled 'pomeste' with a sub-label 'arata datele senzorului', features a 'repetă la infinit' loop. Inside, a 'fă' loop contains 'actionare motor' set to 'inainte' and 'viteza %' set to 30. This is followed by a '+ dacă' block with the condition 'Sensor touch Port 1' 'apasat?' set to 'adevărat'. Inside the 'dacă' block, there is a 'fă' loop with 'intoarce stanga' and 'viteza %' set to 30, and 'grad' set to 120. The second snippet, titled 'start' with a sub-label 'show sensor data', features a 'repeat indefinitely' loop. Inside, a 'do' block contains 'drive forwards' and 'speed %' set to 30. This is followed by a '+ if' block with the condition 'touch sensor Port 1' 'pressed?' set to 'true'. Inside the 'if' block, there is a 'do' block with 'turn left' and 'speed %' set to 30, and 'degree' set to 120.

3. Avoid the obstacle

```
+ start show sensor data
repeat indefinitely
do
  drive forwards speed % 30
  + if touch sensor Port 1 pressed? = true
  do
    turn right speed % 30
      degree 116
    drive forwards speed % 30
      distance cm 36
    turn left speed % 30
      degree 90
    drive forwards speed % 30
      distance cm 55
    turn left speed % 30
      degree 90
```



COLOR DETECTION

Using a sensor, so when the robot detects the color red it will turn left.

```

+ start
show sensor data
repeat indefinitely
do
drive forwards speed % 30
+ if touch sensor Port 1 pressed? = true
do
turn right speed % 30
degree 116
drive forwards speed % 30
distance cm 36
turn left speed % 30
degree 90
drive forwards speed % 30
distance cm 55
turn left speed % 30
degree 90
drive forwards speed % 30
distance cm 20
+ if get colour colour sensor Port 3 = red
do
turn right speed % 30
degree 90
    
```

LESSON 4.

LINE FOLLOWER

```
+ start  show sensor data
drive forwards speed % 30
repeat indefinitely
do
  deplasure
  depasire
  parasire

+ deplasure
+ if get colour colour sensor Port 3 = 
do drive forwards speed % 30

+ depasire
+ if get colour colour sensor Port 3 = 
do turn right speed % 30

+ parasire
+ if get colour colour sensor Port 3 = 
do turn left speed % 30
  degree 30
```

