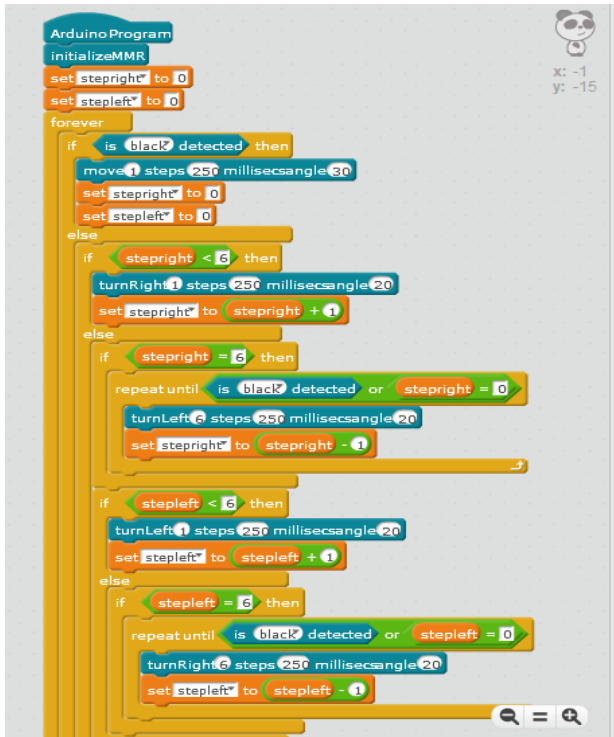


Magnetic Motion Robot (MMR): How MMR follows a black line



```
--  
42 void loop(){  
43  
44   if(digitalRead(PINLINEF)==1){  
45     mmrMove(1,250,30,servo_1,servo_2);  
46     stepright = 0;  
47     stepleft = 0;  
48   }else{  
49     if((stepright) < (6)){  
50       mmrTurnRight(1,250,20,servo_1);  
51       stepright = (stepright) + (1);  
52     }else{  
53       if(((stepright)==(6))){  
54         while(!((digitalRead(PINLINEF)==1) || (((stepright)==(0))))){  
55           {  
56             _loop();  
57             mmrTurnLeft(6,250,20,servo_2);  
58             stepright = (stepright) - (1);  
59           }  
60         }  
61       if((stepleft) < (6)){  
62         mmrTurnLeft(1,250,20,servo_2);  
63         stepleft = (stepleft) + (1);  
64       }else{  
65         if(((stepleft)==(6))){  
66           while(!((digitalRead(PINLINEF)==1) || (((stepleft)==(0))))){  
67             {  
68               _loop();  
69               mmrTurnRight(6,250,20,servo_1);
```

Teachers

The code “DemoLineFollower.sb2” is an example how the MMR follows a black line.

The code is very simple as you can see in the block section in the image:

- Initialize the Magnetic Motion Robot (MMR).
- In the main loop, the MMR is continuously testing is a black line is detected by the sensor.
- If the black line is detected, MMR moves one step forward (angle = 20°; velocity=250 millisecs)
- If the black line is not detected, MMR moves several steps to the left and to the right to find again the black line.

Kids

ACTIVITY 1

Code the MMR to increase the motion velocity.

ACTIVITY 2

Code the MMR to improve the line follower algorithm.