

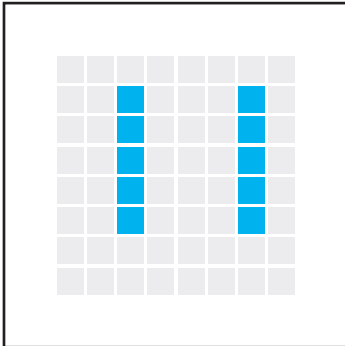
WORKSHEET W016

ALARM CLOCK

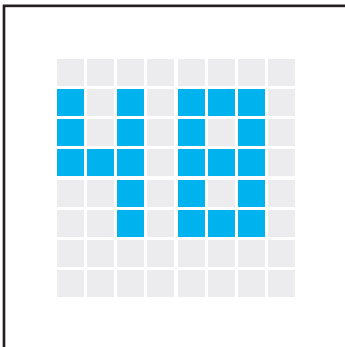
In this worksheet we reconnect the Oxocard to the Internet to program a simple alarm clock.

EXERCISE

Get the current time from the Internet and program a simple alarm clock.



Display the hours for one second at a time...

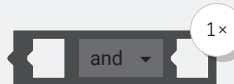
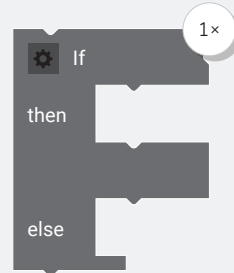
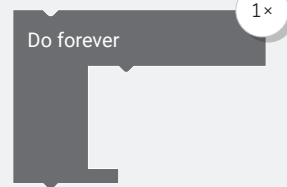


...then the minutes for another second.

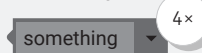
HINT

Define the variable «h» and get the hours, then the variable «m» and get the minutes. After that you need an «if/else» block. At «if» you specify the alarm time, at «then» the animation you want to trigger and at «else» you display the time.

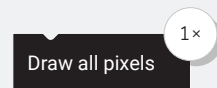
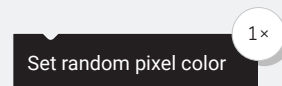
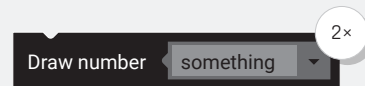
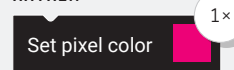
LOGIC



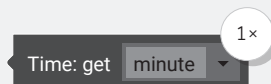
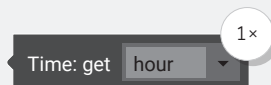
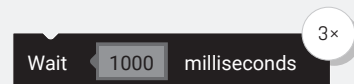
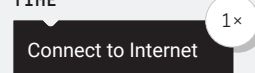
VARIABLES



MATRIX



TIME



PARTS LIST LIST OF BLOCKS TO BE USED



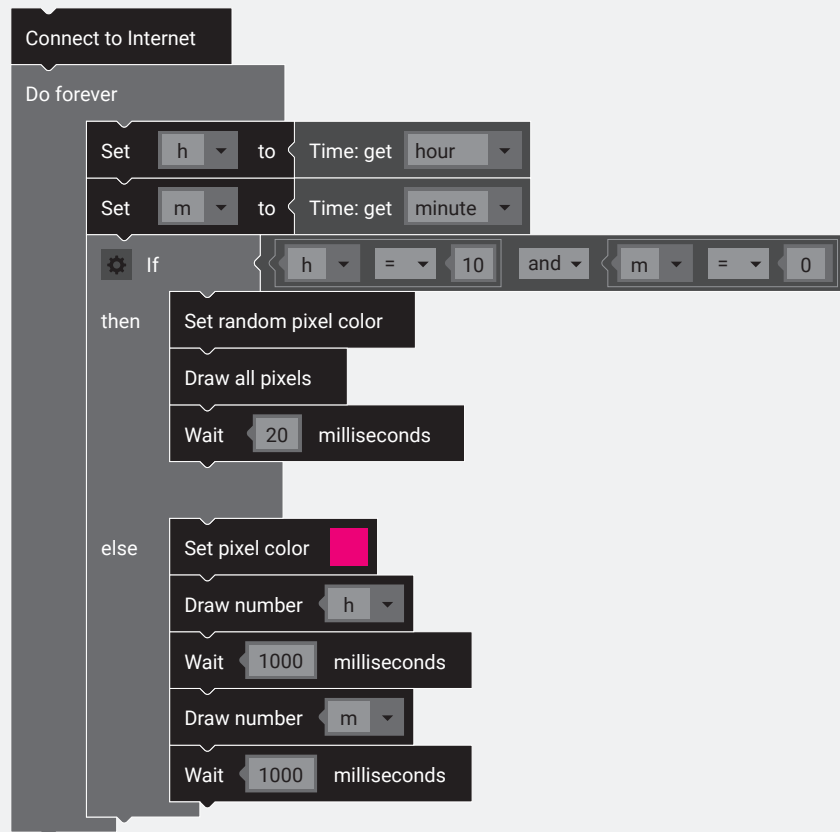
LEVEL INTERMEDIATE

WORKSHEET W016

ALARM CLOCK

SOLUTION

PROPOSED SOLUTION



WORKSHEET W016

ALARM CLOCK

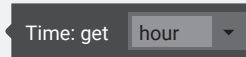
Learning objective:

Capacity to get the current time from our server to program an alarm clock.

WHAT TO DO

- 1.**
Connect the Oxocard to the Internet.
- 2.**
Then comes the «Do forever» loop. All other blocks must be positioned in this loop.
- 3.**
Set the variables «h» and «m» with the current hour and minute respectively.
- 4.**
Now comes the «if/else» block. As «If» condition we compare the «h» and «m» variables with the desired alarm time.
- 5.**
The alarm animation is programmed in the «then» column. Our suggested solution: «Set random pixel color», «Draw all pixels», «Wait 20 milliseconds» - to create a simple strobe light.
- 6.**
The clock display is programmed in the «else» column. The pixel color is set to white, then the hours are displayed first and then the minutes for one second each.

NEW COMMANDS



As soon as the Oxocard is connected to the Internet, the current time can be retrieved with this block. In the dropdown menu you can select second (0-59), minute (0-59), hour (0-23), weekday (0-6), day (1-31), month (0-11) and year (20xx).