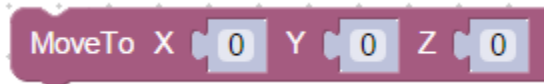


Familiar with the built-in coordinate system of DOBOT Magician

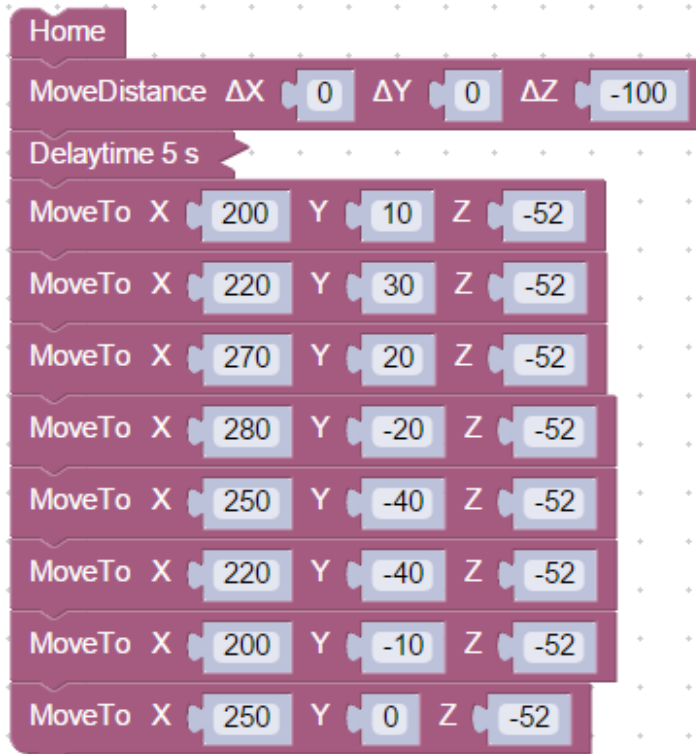
There is a fixed coordinate system attached to the DOBOT as reference.

You can use this fixed coordinate system to instruct DOBOT to move to a certain position.

The command used this time is



Run the following program



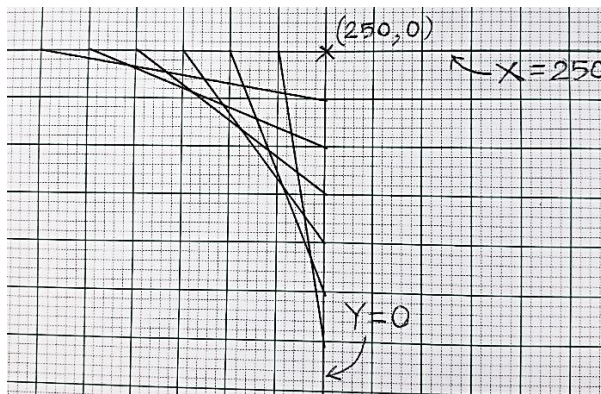
Mark down the following coordinates on the graph paper

| | |
|------------|------------|
| (200, 10) | (250, -40) |
| (220, 30) | (220, -40) |
| (270, 20) | (200, -10) |
| (280, -20) | (250, 0) |

Try to estimate the location of the origin of this coordinate system.

- Where is the lines $X = 250$ and $Y = 0$? Draw these 2 lines on the graph paper.
- Write down I to label the first quadrant, what are the signs of the X and Y coordinates? Which locations above belong to this quadrant I?

- Write down II to label the second quadrant, what are the signs of the X and Y coordinates? Which locations above belong to this quadrant II?

Programming01:

Think of the figure composed of 6 lines

In which quadrant (quadrant I or quadrant II) is the figure located? Write down the coordinates of these 6 lines

| Line number | From | To |
|-------------|------------|----------|
| L1 | (250, -60) | (260, 0) |
| L2 | (250, -50) | (270, 0) |
| L3 | | |
| L4 | | |
| L5 | | |
| L6 | | |

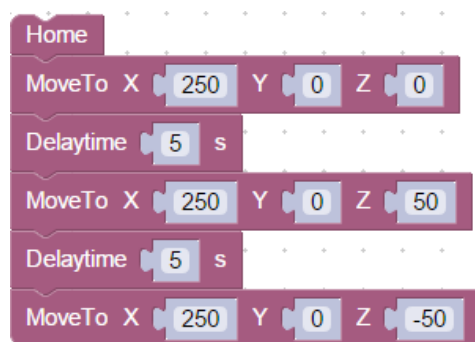
Write a program to draw these 6 lines on the graph paper.

Hints:

You can draw the first line by converting the following algorithm into a program.

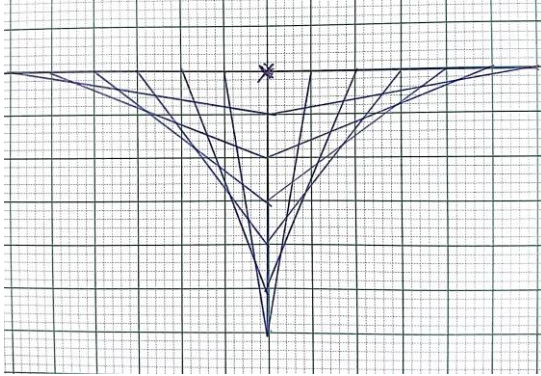
- Pen up
- Move to position (250, -60)
- Pen down
- Move to position (260, 0)
- Pen up

How to determine the level (the value of Z coordinate) at which the pen should be positioned? Study the following program.



Programming02:

Write a program to draw the following figure on the graph paper.



Imagine the figure as consisting of 6 V-shaped lines

Write down the coordinates of these 6 V-shaped lines

| Line number | From | To | T0 |
|-------------|------------|----------|------------|
| L1 | (250, -60) | (260, 0) | (250, +60) |
| L2 | (250, -50) | (270, 0) | |
| L3 | | | |
| L4 | | | |
| L5 | | | |
| L6 | | | |

Modify the program in section Programming01 to draw these 6 V-shaped lines on the graph paper.

Hints:

You can draw the first line by converting the following algorithm into a program.

- Pen up
- Move to position (250, -60)
- Move to position (260, 0)
- Move to position (250, +60)
- Pen up

Study the following program.

