



MBOTS

BEGINNER

NAME:

AGE:

START DATE:

EXTRA RESOURCES:

Most of the exercises are taken from the
'mBlock Kids maker rocks with Robots' book available under:
<http://tinyurl.com/mBotsbook>

PREREQUISITES:

SetUp:
<http://tinyurl.com/mBotSetup>

MODULE 1

<http://tinyurl.com/mbotModule1>

CHECKS:

- ☐ Knows how to control LED lights
- ☐ Knows how to control the buzzer tone
- ☐ Understands how the "wait until" block works
- ☐ Is able to change LED light colors
- ☐ Understands what arduino mode does

MODULE 2

<http://tinyurl.com/mbotModule2>

CHECKS:

- ☐ Can explain how the ultra-sensor works
- ☐ Is able to explain a loop structure
- ☐ Can explain the difference between "repeat", "repeat until" and "forever" blocks
- ☐ Is able to demonstrate how to use ultrasonic sensor

EXTRA:

- ☐ Completed expansion exercises
- ☐ Understands "wait" block and how it differs to "wait until"

EXERCISES:

- ☐ Completed exercise 1
- ☐ Completed exercise 2
- ☐ Completed exercise 3
- ☐ Completed exercise 4

MODULE 3

<http://tinyurl.com/mbotModule3>

CHECKS:

- ☐ Understands how to use mathematic operations (4 types)
- ☐ Was able to create and use a variable
- ☐ Demonstrated understanding of “if then” block
- ☐ Demonstrated understanding of “if then else” block

CHALLENGE:

- ☐ Completed “try it” exercise where “if then” was replaced with “if then else” blocks

MODULE 4

<http://tinyurl.com/mbotModule4>

CHECKS:

- ☐ Completed ‘warm up’ exercise
- ☐ Wrote a program to control mBot via remote transceiver
- ☐ Completed challenge task

MODULE 5

<http://tinyurl.com/mbotModule5>

This is the last session and the ninjas are encouraged to play around with mBots. There are two programs which ninjas can try to replicate “Obstacle Avoiding mBots” and “Line patrolling mBot”.

CHECKS:

- ☐ Completed ‘Obstacle avoiding mBots’
- ☐ Completed ‘Line patrolling mBot’
- ☐ Was able to make a custom block

CONGRATULATIONS
YOU HAVE COMPLETED
mBot activities