

MicroWorlds EX[™]

ROBOTICS EDITION

Reference Sheet v 1.0

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The screenshot shows the MicroWorlds EX Robotics Edition interface. It features a text editor at the top with a 'Download' button, a 'Beep test' button, and a command execution area at the bottom. Annotations with arrows point to various parts of the interface:

- Write robotics procedures here* points to the text editor containing:

```
to go  
aon con  
check  
go  
end  
  
to check  
if switch1 [ard crd]  
end
```
- Download your procedures to the RCX* points to the 'Download' button.
- Check communication between MicroWorlds EX and the RCX by clicking here* points to the 'Beep test' button.
- Execute commands here* points to the command execution area containing the word 'go'.
- Type the name of the superprocedure you wish to download to the RCX and hold the machine so it does not run away* points to the 'go' command.

The interface also includes a toolbar at the bottom with icons for home, help, search, a bug, and a robot.

MicroWorlds EX Robotics LEGO Primitives

Commands

aon
bon
con

aoff
boff
coff

aonfor #
bonfor #
confor #

ard
brd
crd

asetpower # (1-7)
bsetpower # (1-7)
csetpower # (1-7)

athisway
athatway

wait # (in tenths
of a second)

waituntil [*this
list of
instructions is
true*]

display *something*

note *pitch duration*

resett

clearbuffer

sendmessage #
sendm #

RCX Reporters

switch1
switch2
switch3

angle1
angle2

angle3

sensor1
sensor2
sensor3

reflect1
reflect2
reflect3

temp1
temp2
temp3

timer

Interaction with MicroWorlds Commands

sendremotecommand
[*list of
instructions*]

sendrc [*list of
instructions*]

sendmessage (#
*between -16383 &
16383*)
sm #

Reporters

Message?
Message

remotemessage
rm

remotemessage?
rm?

Requestremotemessage

For more specific advice on the use of these primitives, consult the MicroWorlds EX Robotics help from the *Help-Robotics* menu. Be sure to check out the Samples and Tutorials built into the software as well!

Handy procedure

The following RCX procedure causes the infrared light on a light sensor to illuminate so that reflect1, reflect2 or reflect3 report a more accurate range of data.

```
To init1  
Display reflect1  
end
```