A. Karel Reference Card

This appendix defines the structure of the Karel programming language on a single page.

Karel program structure:

```
/**
 * Comments may be included anywhere in the program between a
 * slash-star and the corresponding star-slash characters.
 */
include "karel.h";

void setup() {
  loadWorld("nameOfWorld"); /* Filename of Karel's world */
}

void run() {
  /* statements in the body of the function */
}
/* definitions of your own functions */
```

Built-in Karel commands

`move();` `turnLeft();` `putBeeper();`
`pickBeeper();`

Iterative statements:

`int i;`
`for (i=0; i <` *count*`; i++) {`
statements to be repeated
`}`
`while (`*test*`) {`
statements to be repeated
`}`

Function definitions:

`void` *name*`() {`
commands that make up the body of the function
`}`

Karel condition names

`frontIsClear()` `frontIsBlocked()`
`leftIsClear()` `leftIsBlocked()`
`rightIsClear()` `rightIsBlocked()`
`beepersPresent()` `noBeepersPresent()`
`beepersInBag()` `noBeepersInBag()`
`facingNorth()` `notFacingNorth()`
`facingEast()` `notFacingEast()`
`facingSouth()` `notFacingSouth()`
`facingWest()` `notFacingWest()`

Conditional statements:

`if (`*conditional test*`) {`
statements to be executed only if the condition is true
`}`

`if (`*conditional test*`) {`
statements to be executed only if the condition is true
`} else {`
statements to be executed if the condition is false`) {`
`}`