

Omega-Lang Documentation

Label

Labels signify wherever a procedure starts

```
GOODMOVE //here, GOODMOVE is a label, and is the first one listed,  
          //meaning it will be the default main procedure for the tank.  
SCAN FOR ENEMY //these lines are a tab over,  
              //meaning they are not labels  
IF ENEMY SEEN THEN DO FOLLOW  
DETECT OBSTRUCTION AT FRONT  
IF TANK MOVEMENT CLEAR THEN BRANCH TO GO
```

IF

Starts an if statement. Generally followed by either comparing a variable ($x < y$, using operators such as `=`, `<>`, `>=`, `<=`, `>`, `<`, `+`, `-`, etc.) or the following key words:

TANK

Refers to the tank that the player is programming for. The player can either check for

TREADS

Refers to the treads of the player's tank. The player can check to see if the tank treads are `FUNCTIONAL` or `NONFUNCTIONAL`.

MOVEMENT

Refers to the movement path of the player's tank. The player can check to see if the path is `OBSTRUCTED` or `CLEAR`.

FUEL

Refers to the fuel level of the player's tank. The player can check to see if there is any fuel `REMAINING` or if their tank is `EMPTY`.

ENEMY or CLOSEST OBJECT

Refers to any Enemy on the field, or the closest object to the player. This kind of it statement is generally done after the player's tank has detected or scanned an enemy or object. The player can check to see if it is SEEN, UNSEEN, or WITHIN RANGE.

These are then followed by THEN which is then followed by a [DO/BRANCH TO](#)

```
IF ENEMY SEEN THEN DO FOLLOW
```

```
IF TANK MOVEMENT CLEAR THEN BRANCH TO GO
```

MOVE

Moves the tank either FORWARD, BACKWARD, NORTH, SOUTH, EAST, or WEST by an integer amount of units.

```
MOVE FORWARD 7
```

SCAN FOR

Scans for either an ENEMY or OBJECT

DETECT

Looks for either an OBSTRUCTION AT or ENEMY AT FRONT, SCANNER, or ANGLE.

```
DETECT OBSTRUCTION AT FRONT
```

TURN

Turns the players tank either LEFT, RIGHT, at an ANGLE of an integer amount of degrees, or TO SCANNER.

```
TURN TO SCANNER
```

ROTATE

Rotates the player's turret either LEFT or RIGHT by an integer amount of degrees, TO ANGLE of an integer amount of degrees with 0 pointing towards the right, or TO SCANNER (in the direction that something is scanned in).

```
ROTATE LEFT 1
```

ROTATE ANGLE 45

FIRE AT

Allows the player to fire at either an ENEMY, OBJECT, or OBSTRUCTION

DO/BRANCH TO

Branches to a given label. Generally if a label is wanted to be looped, it will have a **BRANCH TO** statement after it.

GOODMOVE

```
    SCAN FOR ENEMY
    IF ENEMY SEEN THEN DO FOLLOW
    DETECT OBSTRUCTION AT FRONT
    IF TANK MOVEMENT CLEAR THEN BRANCH TO GO
    FIRE AT OBSTRUCTION
    FIRE AT OBSTRUCTION
    DETECT OBSTRUCTION AT FRONT
    IF TANK MOVEMENT CLEAR THEN BRANCH TO GO
    ROTATE LEFT 1
    BRANCH TO GOODMOVE //the branch statement that loops the
    //procedure is here
```