

Instruction	Description
<broadcast_message>	Sends a message to all neighboring cells. Appears in source code as <bc_msg>.
<broadcast_message_check_task>	Packages up two numbers from the cell's registers as a message and sends them to all the neighboring cells of the focal cell. Also checks if the message contains a task result. If so, the cell performs that task. Appears in source code as <bc_msg_check_task>.
<donate_res_to_organism>	Gives the resources collected by the cell to the organism proper. This must be done for the organism to be able to use resources for propagule production. Appears in source code as <donate_res_to_group>.
<input_two_values>	Takes in two numbers as input (these inputs are fixed). Appears in source code as <fixed_input>.
<is_neighbor>	Sets a value in memory to one or zero based on whether the grid cell faced is occupied or not.
<output>	Outputs a number to be evaluated for task completion.
<rotate>	Rotates the facing of a cell clockwise by a number of steps equal to a value in memory. Each step is a 45°. Negative values rotate counter-clockwise.
<rotate_right_one>	Rotates the facing of a cell clockwise by 45°. Appears in source code as <rotate_cw>.
<rotate_left_one>	Rotates the facing of a cell counterclockwise by 45° (cells are embedded within a regular square lattice with neighbors in the cardinal directions). Appears in source code as <rotate_ccw>.
<retrieve_message>	Reads a message (if any has been received) by putting the two numbers in the message into the cell's registers. Appears in source code as <rx_msg>.
<send_message>	Packages up two numbers from the cell's registers as a message and sends them to the neighboring cell that the focal cell is facing. Appears in source code as <tx_msg>.
<send_message_check_task>	Packages up two numbers from the cell's registers as a message and sends them to the neighboring cell that the focal cell is facing. Also checks if the message contains a task result. If so, the cell performs that task. Appears in source code as <tx_msg_check_task>.