Removing Bomb

Main goal

Use hamster robot to remove obstacles

Story

We are removing the bombs placed on the airport

Since it is too dangerous for people to remove it, we are going to use a robot to remove it

The robot is going to remove the bomb with gripper

When the bomb is removed from the airport, the bomb is disabled

Step 1: make a remote

We are going to make our robot move using arrow button

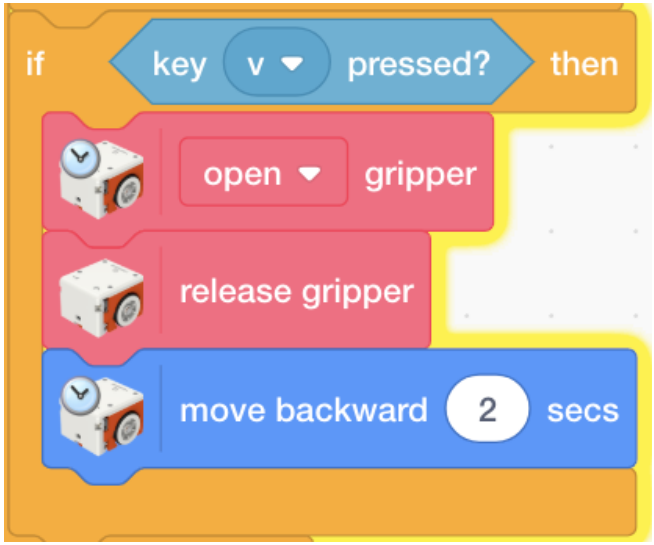
Turn left/right 1 sec turns the hamster approximately 90 degrees. 30 degrees seem to be easier to control robots precisely so it’s better to turn for .3 sec when left/right arrow is pressed

Step 2: grabbing a cup

If an obstacle is found, the gripper closes

If there is no move forward 1 secs function, the gripper might close without catching the cup

Step 3: releasing a cup

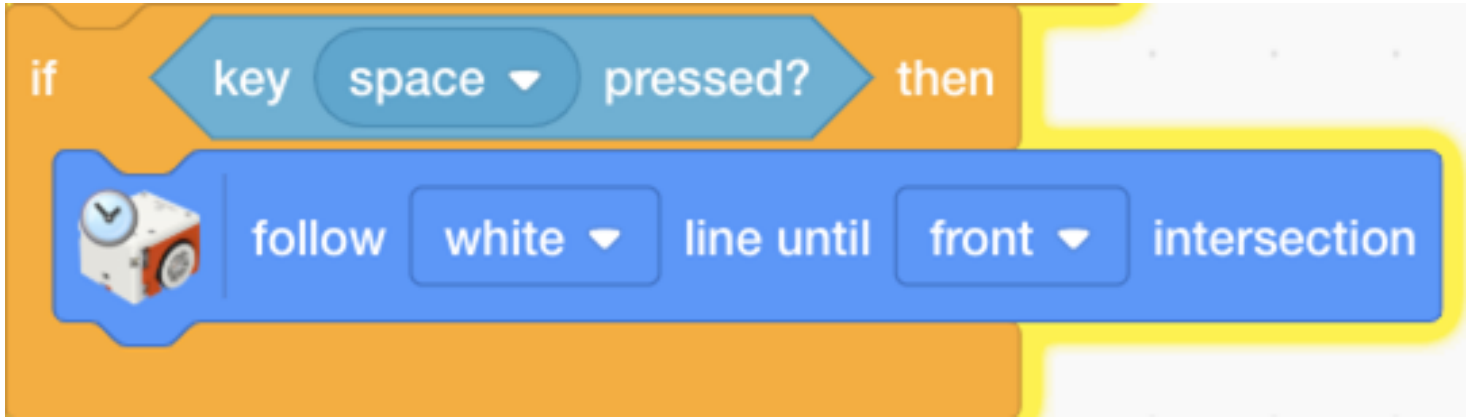


After pressing certain button, the cup is released

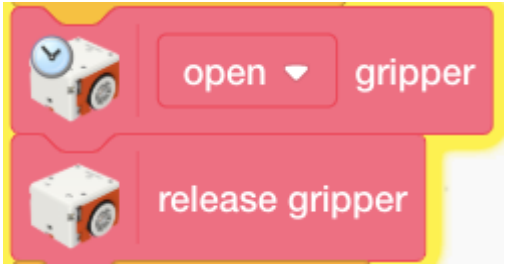
If there is no move backward 2 secs, the hamster will move forward because of the function we made in step 2

Step 4: making the function smoother

To make the releasing the block smoother, follow white line until front intersection makes the hamster align to the parallel line which requires only moving forward to smoothly release the cup outside of the square

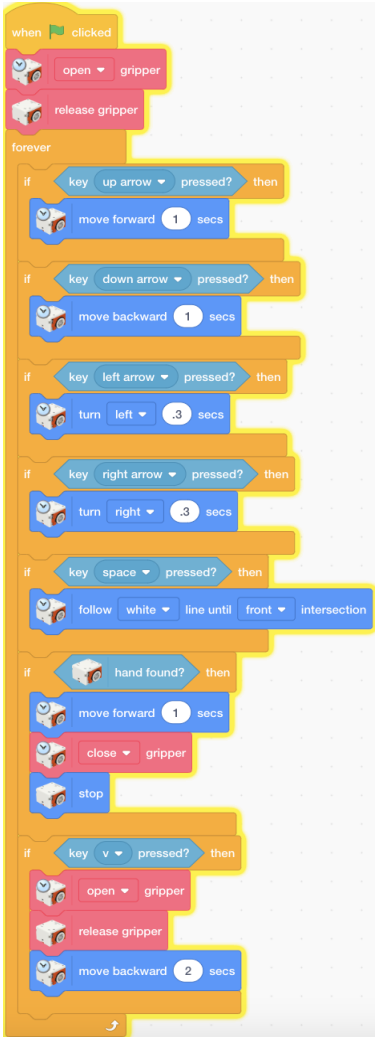


Common mistakes



If you do not open gripper at the start of the coding, the gripper can not hold onto the cups.

Final code


when clicked
open gripper
release gripper
forever
if key up arrow pressed? then
move forward 1 secs
if key down arrow pressed? then
move backward 1 secs
if key left arrow pressed? then
turn left .3 secs
if key right arrow pressed? then
turn right .3 secs
if key space pressed? then
follow white line until front intersection
if hand found? then
move forward 1 secs
close gripper
stop
if key v pressed? then
open gripper
release gripper
move backward 2 secs

POLICE