

# Lani's ColabTurtle Notes!



## Dictionary (Directions are in the Turtle's Perspective)

\* = Referenced and Exists in the Turtle library but not the ColabTurtle library

| Command                           | Description   |
|-----------------------------------|---|
| !pip install Colabturtle as honu  | Installs the Python Turtle library into Google Colab as "honu"  |
| honu.initializeTurtle()           | Initializes the turtle and outputs the screen   |
| honu.right(deg)                   | Turns the turtle "deg" number of degrees right  |
| honu.rt(deg)                      | Turns the turtle "deg" number of degrees right  |
| honu.forward(unit)                | Moves the turtle "unit" number of pixels forwards   |
| honu.fd(unit)                     | Moves the turtle "unit" number of pixels forwards   |
| honu.left(deg)                    | Turns the turtle "deg" number of degrees left   |
| honu.lt(deg)                      | Turns the turtle "deg" number of degrees left   |
| honu.backward(unit)               | Moves the turtle "unit" number of pixels backwards  |
| honu.bk(unit)                     | Moves the turtle "unit" number of pixels backwards  |
| honu.home()                       | Moves the turtle to the beginning position and angle  |
| honu.goto(pix1, pix2)             | Moves the turtle to the coordinates in the coordinate system described in Fig.1                         |
| honu.circle(rad)*                 | Makes a circle with a radius of "rad" pixels  |
| honu.dot(rad)*                    | Makes a dot (filled circle) with a radius of "rad" pixels   |
| honu.bgcolor(color)               | Makes the background "color" either from a given rgb code or a standard color string                    |
| honu.title(string)*               | Titles the turtle screen with the given "string"  |
| honu.shape(turtle)                | Makes the turtle either a "turtle" or a "circle" with a pointer   |
| honu.pensize(wd)                  | Makes the width of the pen to a given pixel size "wd"   |
| honu.shapesize(pix1, pix2, pix3)* | Makes the turtle a given stretch length "pix1" and width "pix2" as well as a given outline width "pix3" |
| honu.fillcolor(color)*            | Makes the turtle "color", a rgb code or a standard color string   |
| honu.pencolor(color)              | Makes the turtle's outline "color", a given rgb code or a standard color                                |

|  |  |
|--|--|
|  | string   |
| honu.color(out, in)                            | Makes the turtle's outline "out" and fill "in" a given rgb code or a standard color string |
| honu.begin_fill()*                             | Starts the fill of a shape yet to be drawn   |
| honu.end_fill()*                               | Completes the fill of a shape that was just drawn  |
| honu.speed(v)                                  | Speeds up the turtle on a scale of $0 \leq v \leq 10$                                      |
| honu.pen(pencolor, fillcolor, pensize, speed)* | Set the pencolor, fill color, pen size and speed of a turtle's pen                         |
| honu.penup()                                   | The turtle stops drawing at that point   |
| honu.pendown()                                 | The turtle begins drawing again at that point  |
| honu.undo()*                                   | Undoes the last command that was executed  |
| honu.clear()                                   | Clears the screen of any marks made  |
| honu.reset()*                                  | Sets up the initial screen as it was on initialization                                     |
| honu.stamp()*                                  | Leaves a print of the turtle   |
| honu.clearstamp(no)*                           | Removes a particular print, "no" from the order they were printed                          |
| hatchling = honu.clone()*                      | Creates another turtle   |

## Reference

- 0 angle is east
- Angles increase clockwise
- Only 1 turtle can exist in an initialization

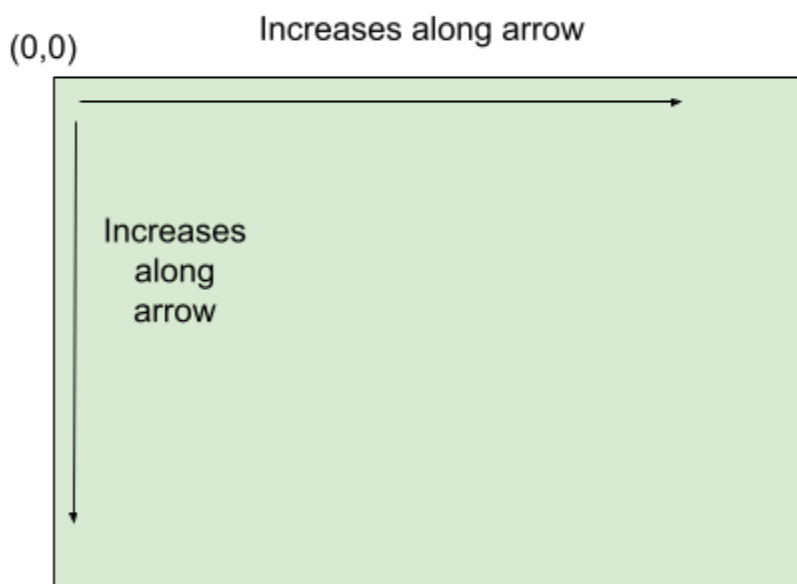


Fig. 1: The Coordinate system is more like this