# Draw a Butterfly

SLQ Wiki Fabrication Lab 2026/02/26 02:21

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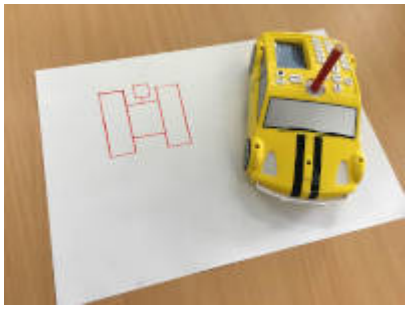


## Details

| | |
|---|---|
| **Age group** | Year 2 to Year 4 (ages 8 to 10) |
| **Method** | Individual activity |
| **Participant to facilitator ratio** | 6:1 |
| **Duration** | 45 mins |

## Aim/Key Learning

Program the Pro-Bot to draw a butterfly on a piece of paper.

## Preparation and Materials Required

- Pro-Bot for each participant
- A pen that fits the Pro-Bot pen holder
- Paper taped to the table

# Activity Steps

## 1. Introduction

**Time:** 10 mins
Introduce yourself, participants introduce themselves, cover any housekeeping. Explain the aim of the workshop (‘Today we are going program a Pro Bot to draw a butterfly’). Show participants how to program the Pro Bot using the movement and repeat commands. Conduct a brief demonstration of the Pro Bot drawing an object (such as a square). Show participants an pre-drawn example butterfly.

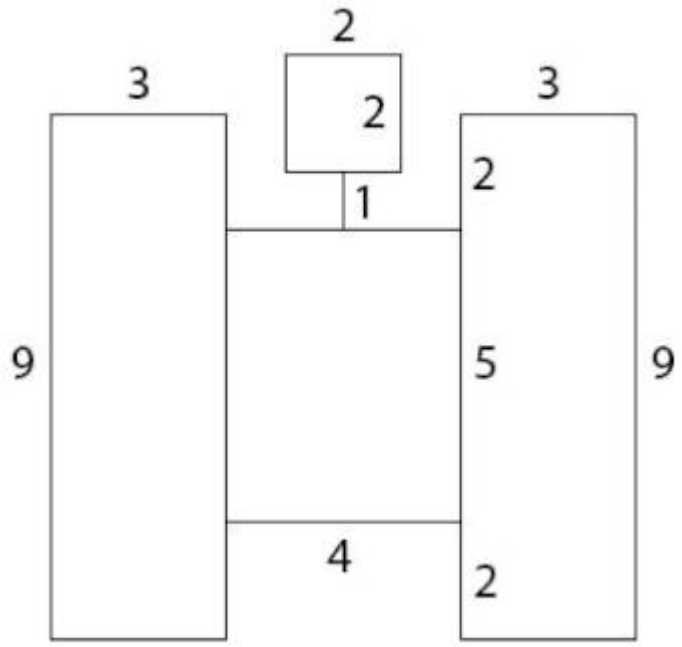
### 2. Experiment and Explore

**Time:** 30 mins
Participants attempt to program the Pro Bot to draw the butterfly. When the Pro Bot makes a wrong move, the facilitator should replace the piece of paper.

### 3. Evaluation and Closing

**Time:** 5 mins
At the end of the session, thank everyone for their participation and team work.

## Solution




- Each wing is 9 cms high and 3 cms wide
- The body is 5 cms high and 4 cms wide
- The neck is 1 cm long
- Each side of the head is 2 cms

There are multiple ways this can be achieved with the Pro-Bot and the code below is only one way.

Starting at the top left corner of the left wing and facing right, the following code can be used:

```
// Left Wing
Fd 3
Rt
Fd 9
Rt
Fd 3
Rt
Fd 9

// Move to bottom of body
Rt
Fd 3
Rt
Fd 7
Lt

// Bottom of body
Fd 4
Rt

// Right Wing
Fd 2
Lt
Fd 3
Lt
Fd 9
Lt
```

```
// Right Wing Cont.
Fd 3
Lt
Fd 7

// Move to top of body
Bk 5
Rt

// Top of body
Fd 4
Bk 2
Rt

// Neck
Fd 1

// Head
Rt
Bk 1
Fd 2
Lt
Fd 2
Lt
Fd 2
Lt
Fd 2
```

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