

# Project 1

## Programming for Design

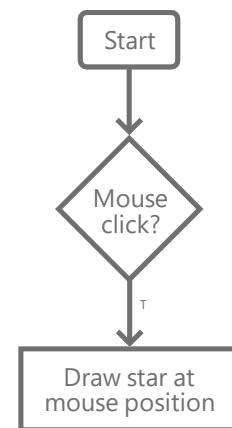
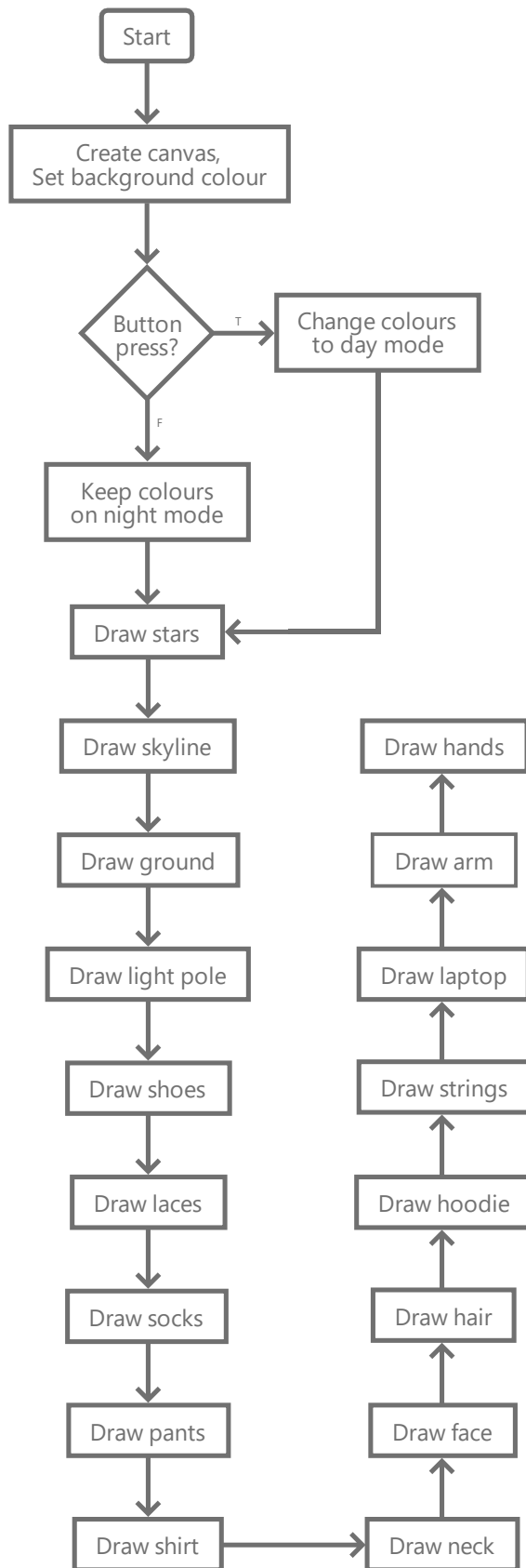
Self portrait with p5.js

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## 1. Flow charts



## 2. Pseudo-code

```
1. create canvas (600 pixels wide, 720 pixels high)
2. set background colour (blue)
3.
4. IF any key is pressed
5.   draw background
6.   set background colour (light blue)
7.   set stars colour (light blue)
8.   set skyline colour (blue)
9.   set light pole colour (dark navy)
10.  set ground colour (navy)
11.
12. draw stars
13. set stars colour (white)
14.
15. draw skyline
16. set skyline colour (dark blue)
17.
18. draw ground
19. set ground colour (very dark blue)
20.
21. draw light pole
22. set light pole colour (black)
23.
24. draw shoes
25. set shoes colour (grey)
26.
27. draw laces
28. set laces colour (white)
29.
30. draw socks
31. set socks colour (light grey)
32.
33. draw pants
34. set pants colour (dark grey)
35.
36. draw shirt
37. set shirt colour (white)
38.
39. draw neck
40. set neck colour (beige)
41.
42. draw face
43. set face colour (light beige)
44.
45. draw hair
46. set hair colour (auburn)
47.
48. draw hoodie
49. set hoodie colour (blue)
50.
51. draw strings
52. set strings colour (white)
53.
54. draw laptop
55. rotate laptop -25 degrees
56. set laptop colour (light grey)
57.
58. draw arm
59. set arm colour (blue)
60.
61. draw hands
62. set hands colour (light beige)
63.
64. IF mouse is clicked
65.  draw star at mouse position
```

### 3. Reflection

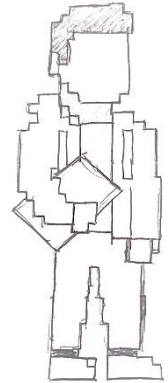
#### Planning phase

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Prior to coding my portrait, I utilised several drafting techniques to ensure that my code would be developed efficiently and with foresight.

I firstly sketched my idea on a piece of paper. I then brought that sketch into Adobe Photoshop to add more detail and experiment with what colours I would want to use. I then drew a flow chart of the order of which elements should be drawn on the canvas. I finally pseudo-coded my flow chart.

These methods for planning and drafting influenced the approach I took when coding and allowed my portrait to be mostly working from the outset. This process emphasised the importance of planning in a project workflow as the effects of not planning my design and code would have been magnified further along in the project timeline.



#### Code quality

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During the coding process, I attempted to promote quality and clarity in my code through establishing correct formatting, using comments and maintaining consistency. I also stored the value of each colour in a variable which allowed me to easily change the colours of shapes.

By employing best practises in my code, I was able to read and understand my program much easier. It also made troubleshooting simpler as I knew exactly what each section of code did. I plan to continue utilising proper code quality techniques in my future projects as I can evidently see the benefits of doing so.

#### Cool features

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I discovered and implemented a few unique features in my program that I enjoyed learning about.

The first feature was from the rotate function in p5.js that allowed me to rotate the rectangle shape for my laptop. I also decided to not draw my laptop in an 8-bit style so that I could include this nerdy joke in the title of my HTML file:

```
8-bit me holding a 64-bit laptop
```

The other features I implemented were from the interaction events that p5.js enables. I made it so when the mouse is clicked, a star is drawn at the mouse position and when a key is pressed, the background changes from night to day. I also used a guide to position my canvas in the centre of the page using CSS (toolness 2019).

#### Final thoughts

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Overall, I am very pleased with my project and I really enjoyed each component of this assignment. It reinforced the importance of planning and I felt that I learnt a lot from it.

#### 4. References

toolness 2019, 'Positioning your canvas · processing/p5.js Wiki', GitHub, accessed 9 September 2019, <<https://github.com/processing/p5.js/wiki/Positioning-your-canvas>>