Part 1

For each partial derivative (x & y), the appropriate Sobel filter was used.

*x-derivative*

|  |  |  |
| --- | --- | --- |
| -1 | 0 | 1 |
| -2 | 0 | 2 |
| -1 | 0 | 1 |

*y-derivative*

|  |  |  |
| --- | --- | --- |
| -1 | -2 | -1 |
| 0 | 0 | 0 |
| 1 | 2 | 1 |

Part 2

A close-up of a grey surface

Description automatically generated

Part 3

A black rectangle with white text

Description automatically generated

Part 4

A collage of a person

Description automatically generated