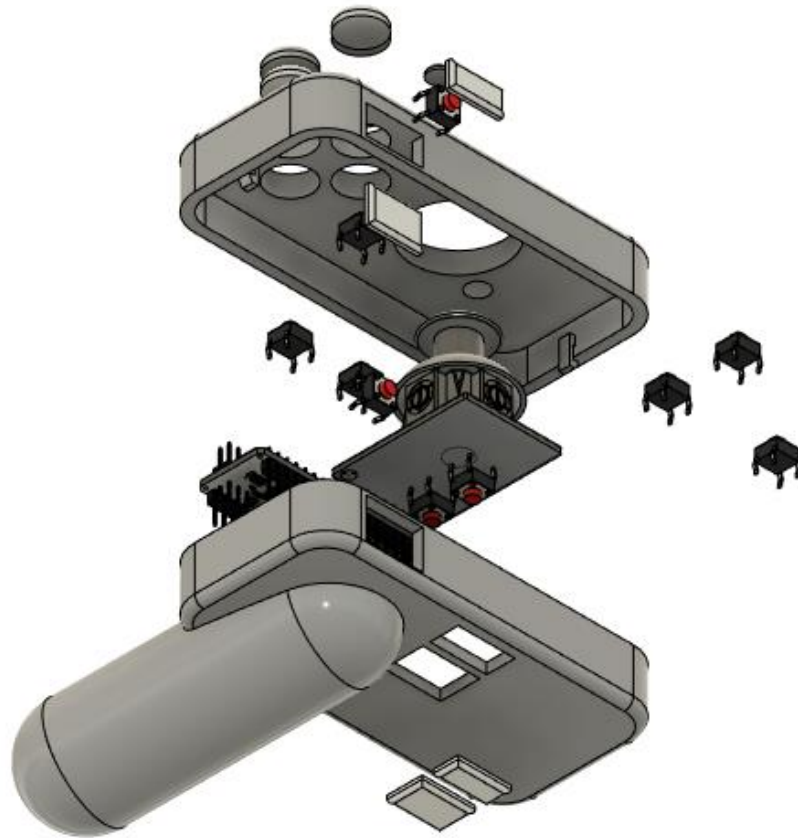


Industrial Design for Game Hardware

Assignment 2 & 3

Kristian Menes 100383679

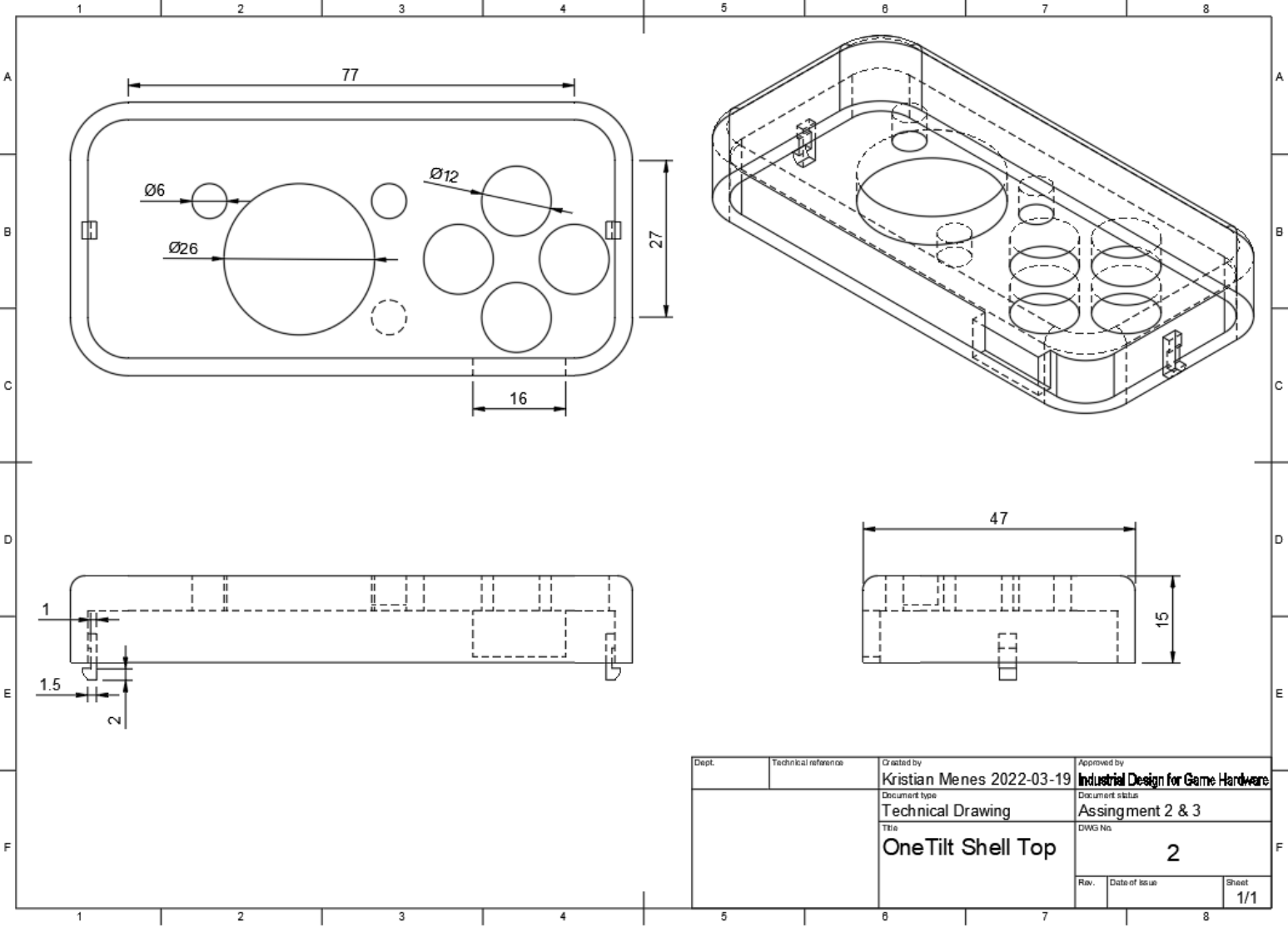
Mathew Kostrzewa 100591924



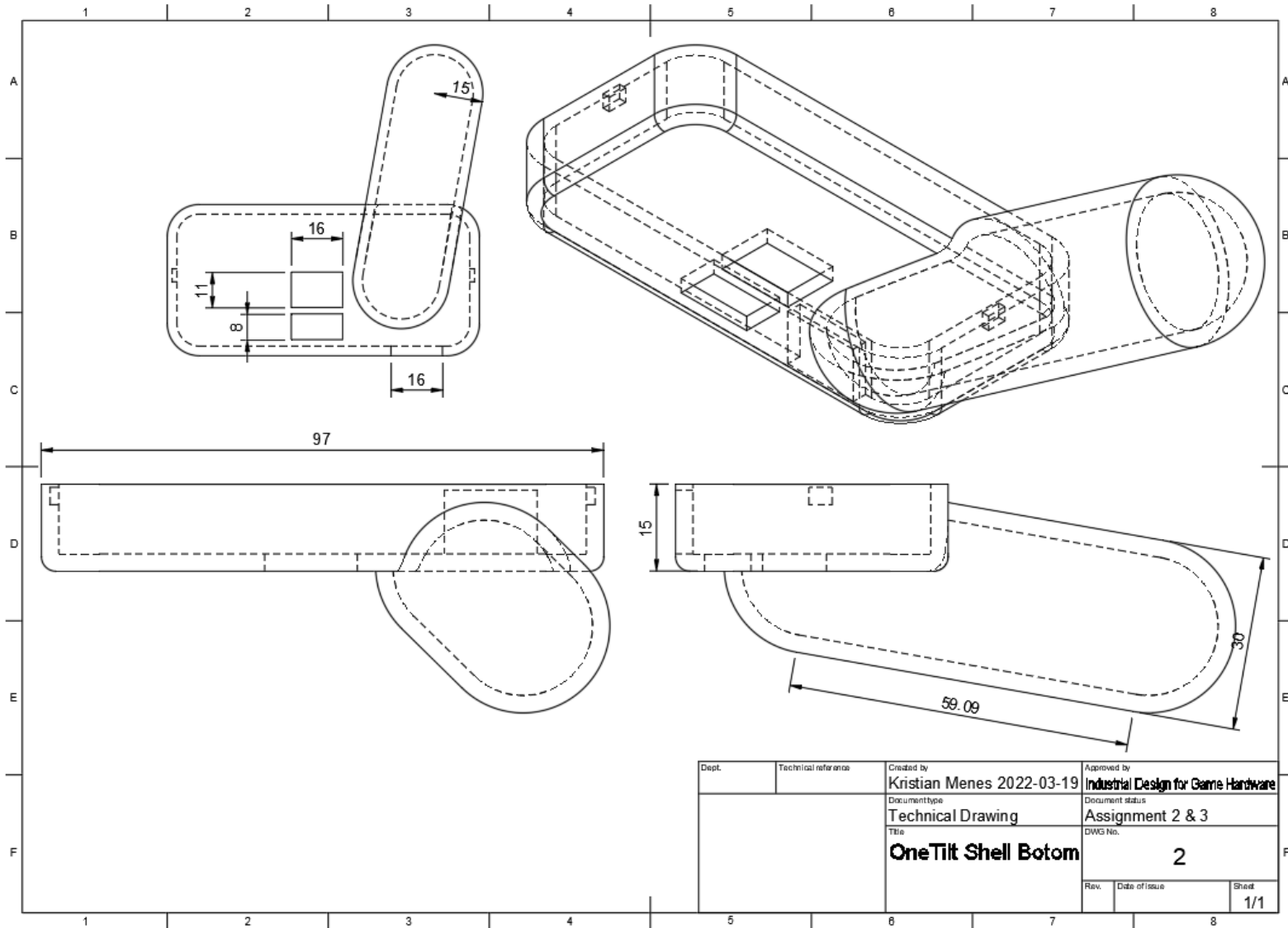
Parts List

| Item | Quantity | Part Number | Description | Obtained From | Material | Cost |
|---------------|----------|-------------|------------------------------------------------------------------------|----------------------------|----------|-----------------|
| Small Button | 3 | 1, 2, 4 | Small, circular pads held within the shell atop the button switches | 3D Printed | ABS | See Below |
| Large Button | 4 | 5, 6, 7, 8 | Larger pads (see Small Button) | 3D Printed | ABS | See Below |
| Bumper | 2 | 11, 13 | Medium rectangular pads (see Small Button) | 3D Printed | ABS | See Below |
| Trigger | 2 | 12, 14 | Large square pads (see Small Button) | 3D Printed | ABS | See Below |
| Joystick | 1 | 3 | Analog stick with directional movement as well as a down click input | Amazon SparkFun Etc. | ABS | \$5 |
| Button Switch | 11 | 15 | Mechanical switches to allow for input when pressed | SparkFun Amazon Etc. | Various | \$2(11) = \$22 |
| Shell Top | 1 | 9 | Houses the components and allows for comfortable use of the controller | 3D Printed | ABS | See Below |
| Shell Bottom | 1 | 10 | (See Shell Top) | 3D Printed | ABS | See Below |
| Arduino Micro | 1 | 16 | Converts inputs into signals | Arduino | Various | \$27.99 |
| Accelerometer | 1 | 17 | Detects controller motion | Future Electronics | Various | \$20 |
| Wiring | N/A | N/A | Connects components | Amazon | Copper | \$1 - \$2 |
| Total ABS | 1 | N/A | N/A | N/A | ABS | \$5 - \$10 |
| Total | | | | | | \$80.99-\$85.99 |

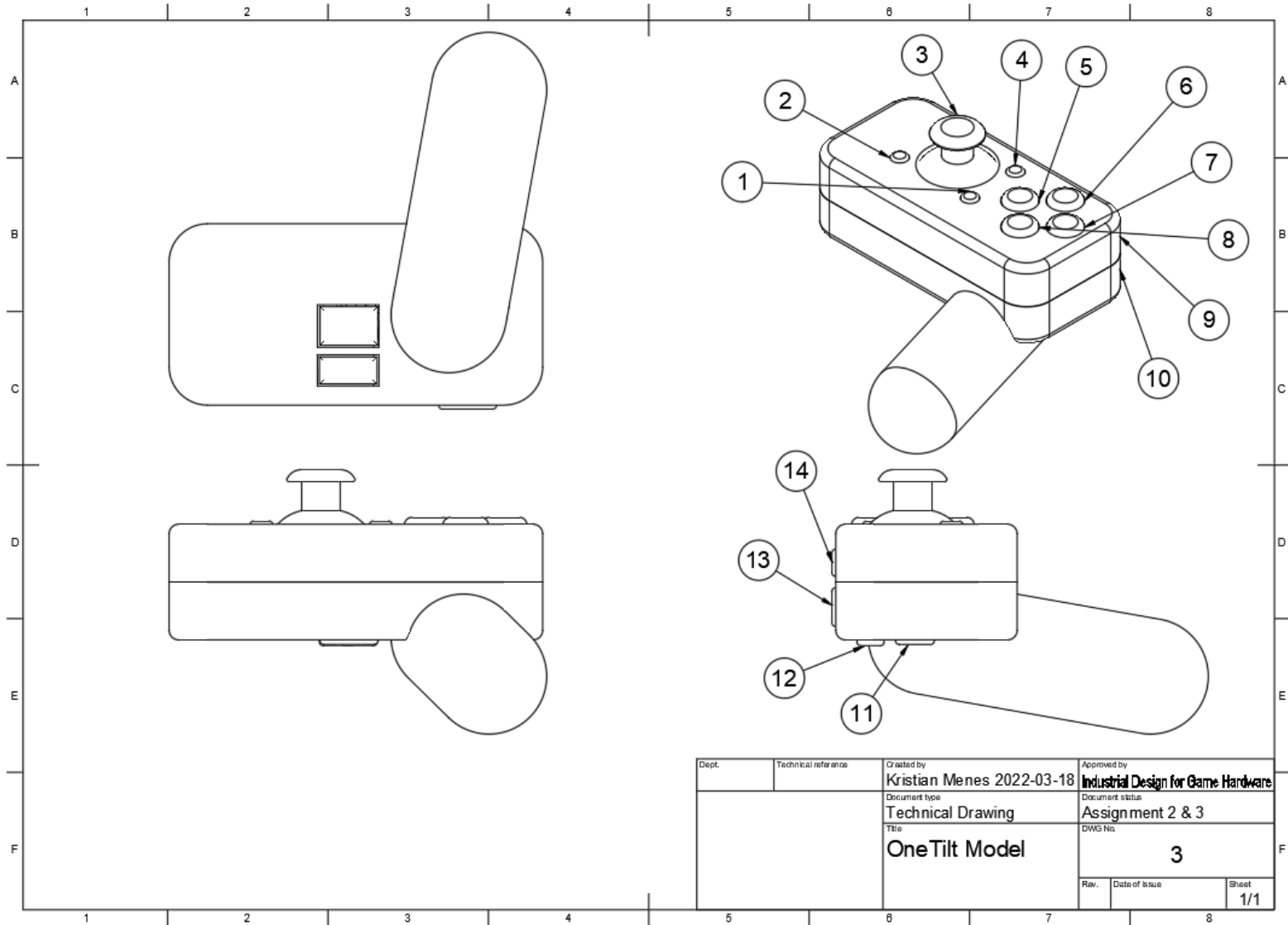
Shell Top Technical Drawing



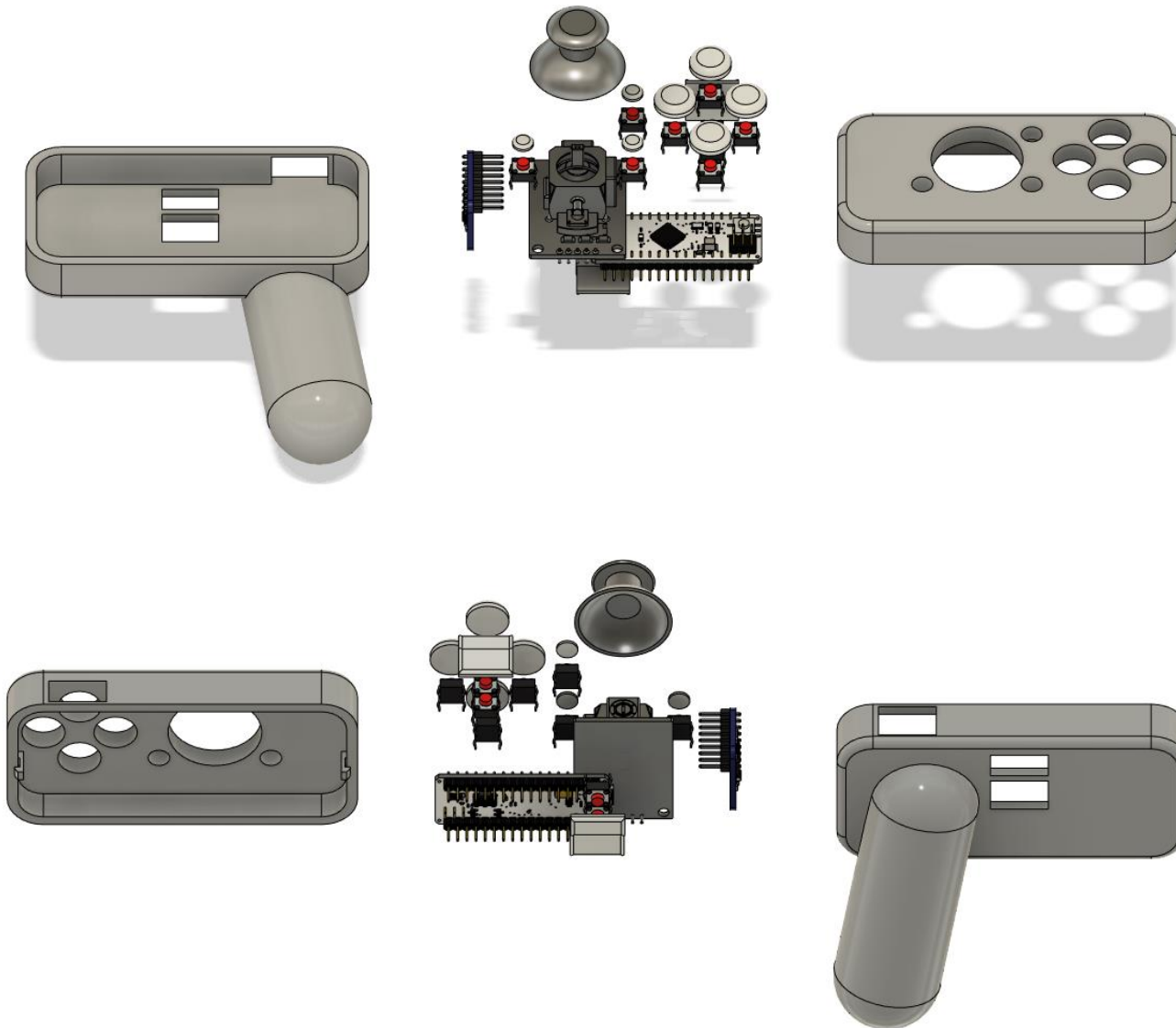
Shell Bottom Technical Drawing



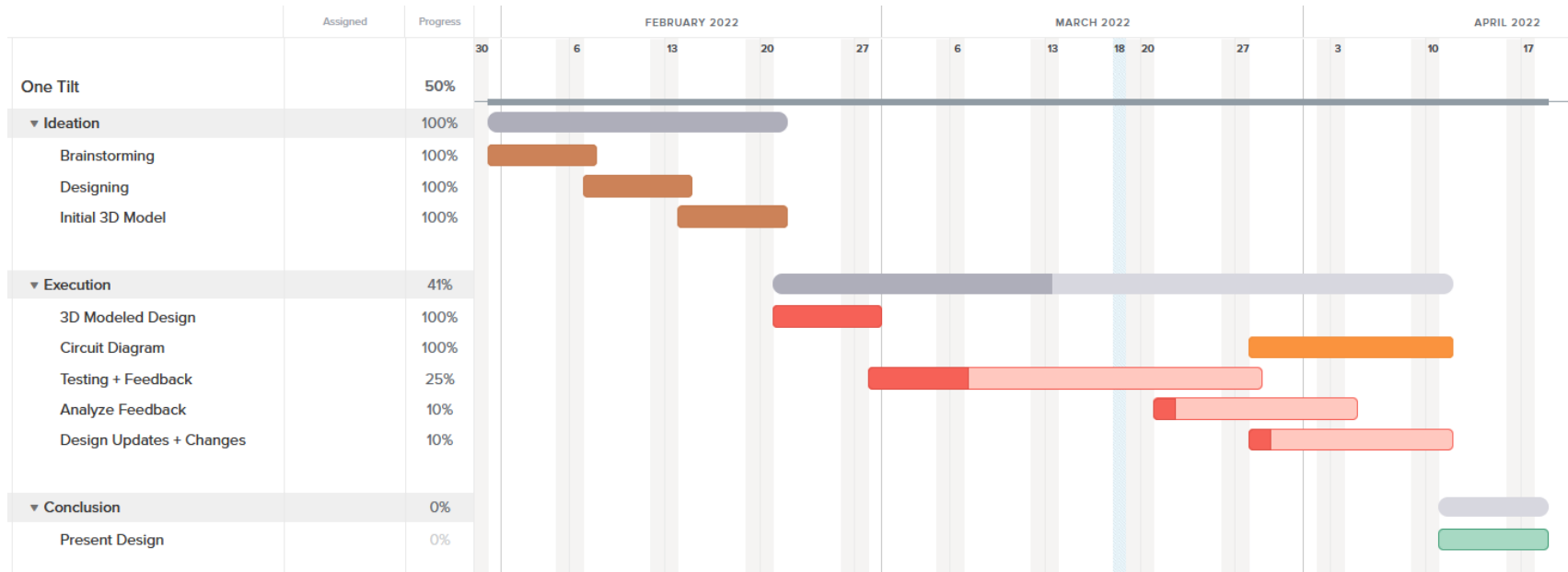
Controller Technical Drawing



Controller Explosion View



Gantt Chart



Roles and Responsibilities

Mathew – Wiring, programming, and electronics

Kristian -