**Table 2:** Resulting Angles after calculating the given quaternion valuesperformed by the user.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Pitch quaternion representation** | | | |  | **Yaw quaternion representation** | | | |  | **Roll quaternion representation** | | | |  |
| X | Y | Z | W | Acquired angles | X | Y | Z | W | Acquired angles | X | Y | Z | W | Acquired angles |
| -0.625 | -0.034 | 0.098 | 0.933 | -80.2 | -0.083 | -0.107 | -0.334 | 0.992 | -40.088 | 0.027 | 0.653 | 0.065 | 0.648 | -80.58 |
| -0.519 | -0.034 | 0.219 | 0.995 | -70.212 | -0.066 | -0.09 | -0.3 | 1 | -35.945 | 0.047 | 0.598 | 0.086 | 0.651 | -70.692 |
| -0.452 | 0.057 | 0.18 | 0.999 | -60.278 | -0.069 | -0.125 | -0.259 | 1 | -30.035 | 0.026 | 0.479 | -0.057 | 0.98 | -60.453 |
| -0.421 | -0.09 | 0.012 | 0.923 | -50.161 | -0.234 | -0.055 | -0.239 | 0.953 | -25.44 | 0.053 | 0.453 | -0.07 | 0.772 | -50.606 |
| -0.353 | -0.038 | 0.062 | 0.893 | -40.088 | 0.056 | -0.037 | -0.234 | 0.726 | -20.071 | 0.056 | 0.328 | -0.041 | 1 | -40.189 |
| -0.284 | 0.06 | 0.154 | 0.771 | -30.041 | -0.033 | 0.074 | -0.128 | 0.994 | -15.082 | 0.08 | 0.259 | -0.031 | 0.975 | -30.54 |
| -0.289 | -0.075 | -0.003 | 0.527 | -20.1 | -0.05 | 0.024 | -0.1 | 0.866 | -10.071 | 0.116 | 0.257 | 0.017 | 0.638 | -20.511 |
| -0.171 | -0.014 | 0.088 | 0.487 | -10.034 | 0.035 | -0.004 | -0.05 | 0.89 | -5.124 | 0.069 | 0.187 | -0.004 | 0.438 | -10.022 |
| -0.009 | -0.059 | 0.123 | 0.815 | 0.009 | 0.02 | -0.057 | 0.001 | 0.884 | -0.019 | 0.069 | 0.005 | 0.043 | 0.604 | 0.024 |
| 0.13 | -0.109 | 0.066 | 0.595 | 10.014 | 0.051 | -0.13 | 0.068 | 0.744 | 5.075 | 0.051 | -0.169 | 0.051 | 0.478 | 10.081 |
| 0.149 | -0.152 | 0.128 | 1 | 20.043 | -0.048 | -0.111 | 0.091 | 0.9 | 10.021 | 0.029 | -0.203 | 0.064 | 0.822 | 20.347 |
| 0.281 | -0.1 | 0.044 | 0.846 | 30.016 | 0.097 | 0.025 | 0.218 | 0.587 | 15.081 | 0.071 | -0.236 | 0.14 | 0.999 | 30.071 |
| 0.339 | -0.15 | 0.008 | 0.949 | 40.006 | 0.035 | -0.211 | 0.221 | 0.808 | 20.035 | 0.073 | -0.316 | 0.125 | 0.994 | 40.03 |
| 0.454 | -0.089 | -0.046 | 0.776 | 50.011 | 0.083 | -0.152 | 0.225 | 1 | 25.065 | 0.053 | -0.394 | 0.16 | 0.946 | 50.112 |
| 0.497 | -0.058 | 0.071 | 0.859 | 60.113 | 0.14 | -0.215 | 0.3 | 0.933 | 30.037 | -0.052 | -0.539 | 0.097 | 0.656 | 60.08 |
| 0.548 | -0.227 | 0.033 | 1 | 70.323 | -0.103 | -0.152 | 0.407 | 0.669 | 35.177 | -0.009 | -0.561 | 0.152 | 0.804 | 70.143 |
| 0.628 | -0.225 | -0.007 | 1 | 80.373 | -0.037 | -0.203 | 0.42 | 0.749 | 40.11 | 0.005 | -0.621 | 0.119 | 0.952 | 80.436 |