Size of Dataset = 3600
Train/Test split = 85:15
Loss function = Categorical Cross Entropy

Exp. No.	Parameters Chosen	Results
1	FC Layer Neurons: 50 Learning Rate: 0.00025 Epochs: 200 Batch Size: 300 Filter Size: (3 x 6 x 6)	Train Accuracy: 71.63% Train Loss: 0.225 Test Accuracy: 66.5% Test Loss: 0.269
2	FC Layer Neurons: 50 Learning Rate: 0.00025 Epochs: 200 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 69.67% Train Loss: 0.228 Test Accuracy: 66% Test Loss: 0.267
3	FC Layer Neurons: 50 Learning Rate: 0.00025 Epochs: 300 Batch Size: 300 Filter Size: (3 x 6 x 6)	Train Accuracy: 70.4% Train Loss: 0.224 Test Accuracy: 69.33% Test Loss: 0.236
4	FC Layer Neurons: 50 Learning Rate: 0.00025 Epochs: 300 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 71.2% Train Loss: 0.219 Test Accuracy: 69.67% Test Loss: 0.242
5	FC Layer Neurons: 50 Learning Rate: 0.0001 Epochs: 200 Batch Size: 300 Filter Size: (3 x 6 x 6)	Train Accuracy: 43.23% Train Loss: 0.455 Test Accuracy: 44% Test Loss: 0.453
6	FC Layer Neurons: 50 Learning Rate: 0.0001 Epochs: 300 Batch Size: 300 Filter Size: (3 x 6 x 6)	Train Accuracy: 63.1% Train Loss: 0.297 Test Accuracy: 60.17% Test Loss: 0.315
7	FC Layer Neurons: 100 Learning Rate: 0.00025 Epochs: 200 Batch Size: 300 Filter Size: (3 x 6 x 6)	Train Accuracy: 62.43% Train Loss: 0.334 Test Accuracy: 58.67% Test Loss: 0.416
8	FC Layer Neurons: 100 Learning Rate: 0.00025 Epochs: 200 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 74.93% Train Loss: 0.204 Test Accuracy: 67.17% Test Loss: 0.286
9	FC Layer Neurons: 100 Learning Rate: 0.00025 Epochs: 300 Batch Size: 300 Filter Size: (3 x 6 x 6)	Train Accuracy: 69.23% Train Loss: 0.253 Test Accuracy: 63% Test Loss: 0.317
10	FC Layer Neurons: 100 Learning Rate: 0.00025 Epochs: 300 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 69.03% Train Loss: 0.24 Test Accuracy: 65.5% Test Loss: 0.273

11	FC Layer Neurons: 100 Learning Rate: 0.0001 Epochs: 200 Batch Size: 300 Filter Size: (3 x 6 x 6)	Train Accuracy: 59.83% Train Loss: 0.5 Test Accuracy: 56.83% Test Loss: 0.579
12	FC Layer Neurons: 100 Learning Rate: 0.0001 Epochs: 200 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 70.1% Train Loss: 0.277 Test Accuracy: 66.5% Test Loss: 0.394
13	FC Layer Neurons: 100 Learning Rate: 0.0001 Epochs: 300 Batch Size: 300 Filter Size: (3 x 6 x 6)	Train Accuracy: 51.3% Train Loss: 0.397 Test Accuracy: 51.17% Test Loss: 0.413
14	FC Layer Neurons: 95 Learning Rate: 0.00025 Epochs: 250 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 75.6% Train Loss: 0.195 Test Accuracy: 68.83% Test Loss: 0.287
15	FC Layer Neurons: 95 Learning Rate: 0.0003 Epochs: 250 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 75.2% Train Loss: 0.193 Test Accuracy: 70.5% Test Loss: 0.260
16	FC Layer Neurons: 95 Learning Rate: 0.0002 Epochs: 250 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 74.03% Train Loss: 0.208 Test Accuracy: 68.5% Test Loss: 0.262
17	FC Layer Neurons: 95 Learning Rate: 0.0003 Epochs: 225 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 61.1% Train Loss: 0.331 Test Accuracy: 60.5% Test Loss: 0.377
18	FC Layer Neurons: 95 Learning Rate: 0.0003 Epochs: 225 Batch Size: 800 Filter Size: (3 x 6 x 6)	Train Accuracy: 74.4% Train Loss: 0.205 Test Accuracy: 69.5% Test Loss: 0.263
19	FC Layer Neurons: 95 Learning Rate: 0.00025 Epochs: 225 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 77.7% Train Loss: 0.182 Test Accuracy: 72.67% Test Loss: 0.261
20	FC Layer Neurons: 95 Learning Rate: 0.00025 Epochs: 225 Batch Size: 800 Filter Size: (3 x 6 x 6)	Train Accuracy: 71.1% Train Loss: 0.229 Test Accuracy: 69% Test Loss: 0.244
21	FC Layer Neurons: 95 Learning Rate: 0.00025 Epochs: 200 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 79.83% Train Loss: 0.171 Test Accuracy: 75.33% Test Loss: 0.236

22	FC Layer Neurons: 90 Learning Rate: 0.0002 Epochs: 200 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 63.5% Train Loss: 0.281 Test Accuracy: 59.5% Test Loss: 0.330
23	FC Layer Neurons: 90 Learning Rate: 0.0003 Epochs: 200 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 59.77% Train Loss: 0.412 Test Accuracy: 57.67% Test Loss: 0.485
24	FC Layer Neurons: 90 Learning Rate: 0.0002 Epochs: 225 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 56.57% Train Loss: 0.344 Test Accuracy: 51% Test Loss: 0.414
25	FC Layer Neurons: 90 Learning Rate: 0.0003 Epochs: 225 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 70.7% Train Loss: 0.227 Test Accuracy: 63.17% Test Loss: 0.265
26	FC Layer Neurons: 150 Learning Rate: 0.00025 Epochs: 200 Batch Size: 300 Filter Size: (3 x 6 x 6)	Train Accuracy: 53.93% Train Loss: 0.603 Test Accuracy: 50.83% Test Loss: 0.686
27	FC Layer Neurons: 150 Learning Rate: 0.00025 Epochs: 200 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 77.73% Train Loss: 0.186 Test Accuracy: 69.5% Test Loss: 0.307
28	FC Layer Neurons: 150 Learning Rate: 0.00025 Epochs: 300 Batch Size: 300 Filter Size: (3 x 6 x 6)	Train Accuracy: 67.6% Train Loss: 0.322 Test Accuracy: 63.5% Test Loss: 0.434
29	FC Layer Neurons: 150 Learning Rate: 0.00025 Epochs: 300 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 63.87% Train Loss: 0.275 Test Accuracy: 60.83% Test Loss: 0.288
30	FC Layer Neurons: 150 Learning Rate: 0.0001 Epochs: 200 Batch Size: 300 Filter Size: (3 x 6 x 6)	Train Accuracy: 65.7% Train Loss: 0.672 Test Accuracy: 61.83% Test Loss: 0.832
31	FC Layer Neurons: 150 Learning Rate: 0.0001 Epochs: 200 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 72.6% Train Loss: 0.358 Test Accuracy: 68.3% Test Loss: 0.478
32	FC Layer Neurons: 150 Learning Rate: 0.0001 Epochs: 300 Batch Size: 300 Filter Size: (3 x 6 x 6)	Train Accuracy: 58.77% Train Loss: 0.453 Test Accuracy: 55.17% Test Loss: 0.570

33	FC Layer Neurons: 120 Learning Rate: 0.0002 Epochs: 200 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 74.96% Train Loss: 0.198 Test Accuracy: 66% Test Loss: 0.274
34	FC Layer Neurons: 120 Learning Rate: 0.0003 Epochs: 200 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 76.83% Train Loss: 0.201 Test Accuracy: 71.5% Test Loss: 0.275
35	FC Layer Neurons: 120 Learning Rate: 0.0002 Epochs: 225 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 69.93% Train Loss: 0.244 Test Accuracy: 67% Test Loss: 0.272
36	FC Layer Neurons: 120 Learning Rate: 0.0003 Epochs: 225 Batch Size: 750 Filter Size: (3 x 6 x 6)	Train Accuracy: 81.23% Train Loss: 0.153 Test Accuracy: 75% Test Loss: 0.245