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"# TEAM ID: PNT2022TMID36138\n",

"# TEAM Member:Karunkaran R"

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"\n",

"import cv2 #mporting opencv Library this i to open camera and take the video\n",

"import numpy as np # to convert image to array and expand dimensions\n",

"from tensorflow.keras.models import load\_model # to Load the saved model\n",

"from tensorflow.keras.preprocessing import image # to preproccess the image\n",

"model = load\_model(\"dataset.h5\") # we are loading the saved moodek\n",

"video = cv2.VideoCapture(0) # two parameters 1, bool 0 or 1, frame\n",

"index = [\"A\",\"B\",\"C\",\"D\",\"E\",\"F\",\"G\",\"H\",\"I\"]\n",

"index=['A','B','C','D','E','F','G','H','I']\n",

"#from playsound import playsound\n",

"while(1):\n",

" success,frame = video.read()\n",

" cv2.imwrite(\"image.jpg\",frame)\n",

" img = image.load\_img(\"image.jpg\",target\_size = (64,64))\n",

" x = image.img\_to\_array(img)\n",

" x = np.expand\_dims (x,axis = 0)\n",

" pred = np.argmax(model.predict(x),axis=1)\n",

" p = index [pred[0]]\n",

" print(\"predicted letter is: \"+ str(p))\n",

" #playSound(\"letter\"+str(str(index [p])+\"is detected\"))\n",

" cv2.putText (frame, \"predicted letter is \"+str(p), (100, 100), cv2. FONT\_HERSHEY\_SIMPLEX, 1,(0,0,0), 4)\n",

" cv2.imshow(\"showcasewindow\", frame)\n",

" \n",

" if cv2.waitkey(1) & 0xFF == ord('a'):\n",

" break\n",

"video.release()\n",

"cv2.destroyAllwindows()"

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