05__06__2:32:40PM

Custom model, input shape 480 x 480

```
model = Sequential([

    layers.experimental.preprocessing.Rescaling(1./255, input_shape=(img_height, img_width,

  layers.Conv2D(64, 3, padding='same', activation='relu'),
    layers.MaxPooling2D(),
    layers.Conv2D(32, 3, padding='same', activation='relu'),
    layers.MaxPooling2D(),

    layers.Conv2D(16, 3, padding='same', activation='relu'),
    layers.MaxPooling2D(),

    layers.Flatten(),

    layers.Dense(128, activation='relu'),
    layers.Dense(num_classes)
  ])
```

Stats

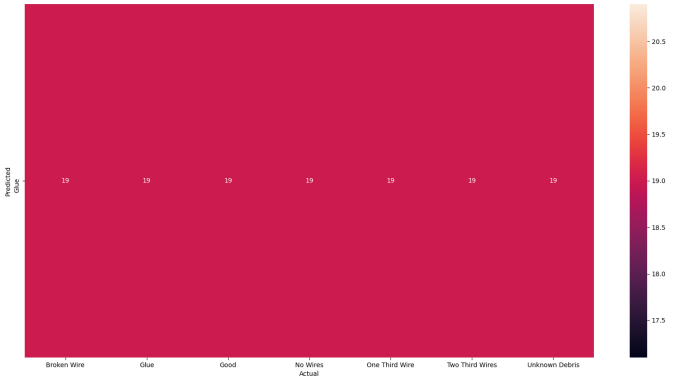
```
Total Tests: 133
correct predictions: 19
incorrect predictions: 114
Percentage correct: 14.29%
=======================
Most missed predictions
Broken Wire:  19
Good:  19
No Wires:  19
One Third Wire:  19
Two Third Wires:  19
Unknown Debris:  19
```

Model Summary

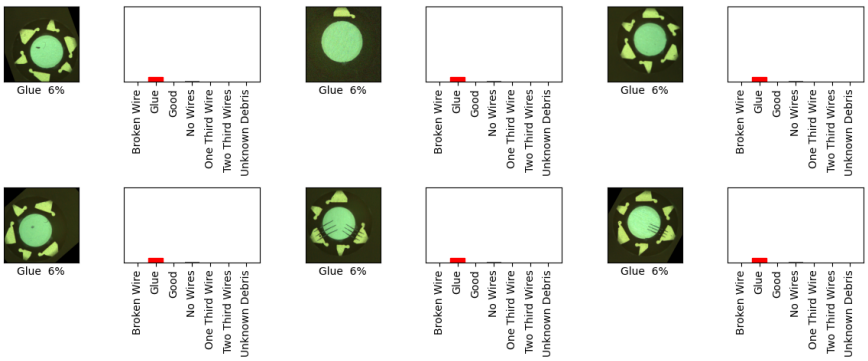
```
Model: "sequential" _________________________________________________________________
Layer (type)                 Output Shape              Param #
=================================================================
rescaling (Rescaling)        (None, 480, 480, 3)       0         _________________________
conv2d (Conv2D)              (None, 480, 480, 64)      1792

_________________________________________________________________
max_pooling2d (MaxPooling2D) (None, 240, 240, 64)      0         _________________________
conv2d_1 (Conv2D)            (None, 240, 240, 32)      18464
```

```
_________________________________________________________________
max_pooling2d_1 (MaxPooling2 (None, 120, 120, 32)      0         _________________________
conv2d_2 (Conv2D)            (None, 120, 120, 16)      4624
_________________________________________________________________
max_pooling2d_2 (MaxPooling2 (None, 60, 60, 16)        0         _________________________
flatten (Flatten)            (None, 57600)             0         _________________________
dense (Dense)                (None, 128)               7372928
_________________________________________________________________
dense_1 (Dense)              (None, 7)                 903       =========================
Total params: 7,398,711 Trainable params: 7,398,711 Non-trainable
params: 0 _____________________________________________________________________
```



Confusion Matrix



Random Samples
Dataframe predictions “‘ score predicted actual confidence path 0 False Glue One Third Wire 0.060296 one_thirds_wires/augmented_image_3.jpg 1 False Glue One Third Wire 0.060389 one_thirds_wires/augmented_image_2.jpg 2 False Glue One Third Wire 0.060296 one_thirds_wires/augmented_image_1.jpg 3 False Glue One Third Wire 0.060286 one_thirds_wires/augmented_image_5.jpg

4 False Glue One Third Wire 0.060251 one_thirds_wires/augmented_image_4.jpg
.. .. 128 False Glue Two Third Wires 0.060290 two_thirds_wire/augmented_image_12.jpg
129 False Glue Two Third Wires 0.060285 two_thirds_wire/augmented_image_16.jpg
130 False Glue Two Third Wires 0.060328 two_thirds_wire/augmented_image_17.jpg
131 False Glue Two Third Wires 0.060353 two_thirds_wire/augmented_image_15.jpg
132 False Glue Two Third Wires 0.060360 two_thirds_wire/augmented_image_14.jpg

[133 rows x 5 columns] “‘