When conducting research on the Fruit 360 classification project, we also noticed a series of problems and challenges that the project is currently facing. The following are a few challenges that we have identified through our screening process:

Interference from external environment

1.Light effects：*The actual lighting environment is very complex, and fruits may have shadows and reflections.*

2.Simultaneous presence of multiple fruits: *How can the model detect all types of fruits when multiple fruits appear in a single image?*

Data set diversity

1.Imbalanced fruit varieties

Overfitting issue with small samples

Tendency to recognize common categories while ignoring rare categories

2.Fruit ripeness and appearance variations: *this will also cause the model to recognize common categories while ignoring rare categories*