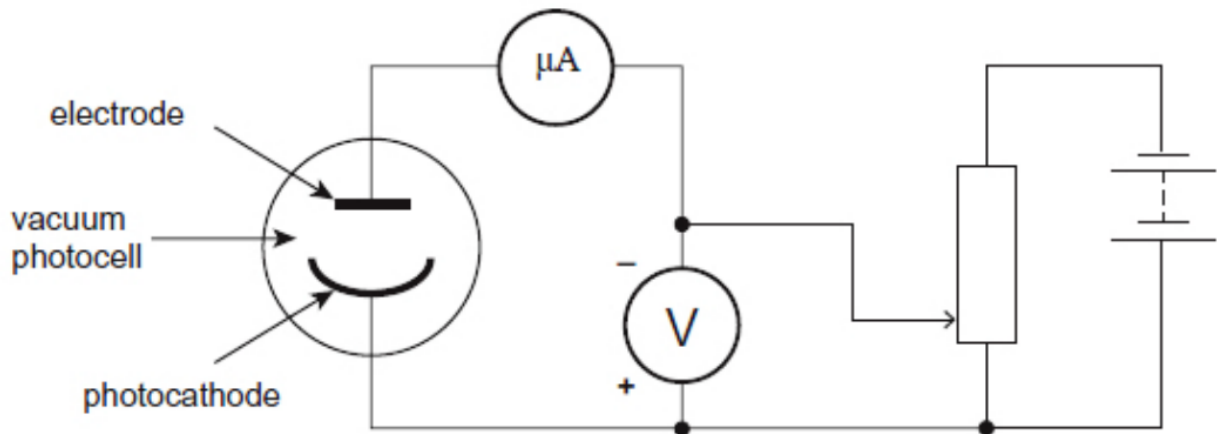


The arrangement shown in the diagram is used by a student in a photoelectric effect experiment.



Monochromatic light falls on the photocathode. A current is recorded when the potential difference (pd) between the photocathode and the electrode is zero.

The student gradually increases the magnitude of the pd between the photocathode and electrode and makes observations of the effect this has on the current.

Describe and explain the observations that you would expect the student to make.

In your answer you should refer to:

- **the stopping potential**
- **the kinetic energy of the photoelectrons**
- **how Einstein's photoelectric equation applies to this experiment.**