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| Image result for puma microscope  Puma | Vision document 1.0  Puma: VirtualScope  ICS 499 – Capstone |

# System Overview

In today’s world, the pace of life is much faster than it used to be due to technology. While there are many things to do, people may not be able to be in place due to location, family or previous engagements. However, research that requires timed observation with specialize tools like microscopes is hard to emulate as it requires on site attention.

Our program, VirtualScope, allows for researchers to have live access from remote locations to their microscope projects. With constant streaming, they can access one or more video feeds from a dedicated website at any time from the comforts of their home or work. The website also offers customizable time taken photos of the microscope subject for the user to compare.

The setup is easy as it requires only a raspberry pi with pre-installed software and camera. A set of microscope accessories are included along with instructions on setting up most microscopes. Once installed, the microscope(s) will be linked to the website for easy access and live streaming.

Cheap and easy, VirtualScope allows busy researchers constant access to their research without the need for on-site monitoring. Our program allows the user freedom to go on with their busy day while being able to monitor their microscope at any time.

# Key Features

* Live streaming
* Time capture screens
* Private website access
* Easy installation

# Capabilities

* Live streaming
  + Constant live video feed
  + Multiple video feeds available
* Time capture screens
  + Customizable time screen captures
  + Easy gallery access for content comparison
* Private website access
  + Access from any location
  + Access at any time
  + Strict user access for secure confidentiality
* Easy installation
  + Quick and easy installation for most microscopes