# PiLapse - CS490 Embedded Systems

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## Project Summary

Our project combines the Raspberry Pi camera and a PIR sensor to create a simple timelapse camera. The program consists of several distinct parts. The first part is the python script (camera_timer.py) that controls the camera and the motion sensor. The script forks threads to handle taking a picture. A picture is taken at both a set interval and while motion is detected by the motion sensor. The second part of the project is the cron job that is set up to combine the previous hour's pictures into a GIF (makegif.sh). The third part of the project is the web2py front end. The saved pictures and GIFs are served up by a web2py web application for viewing via a simple website.

## Hardware Used

Raspberry Pi
Adafruit PIR Sensor
Raspberry Pi Camera

## Software Used

RPi.GPIO
web2py
ImageMagick

## Software Created

web2py webapp
camera_timer.py
makegif.sh