**CS 490 - Homework 9**

**10 points**

**Filing A Bug Report**

Your task for this assignment is to file two or more complete bug reports for the MouseTrap project. Below is a list of current bugs that need to be logged on Bugzilla. You must log your assigned bugs on:

<https://bugzilla.gnome.org/>

Note that the descriptions below are incomplete. You must make sure that your bugs are fully and correctly described using the third person.

* **Implement Cursor Movement**

Outdated and deprecated code to move the cursor needs to be removed and replaced with current GDK pointer functions.

* **Fix Joystick cursor movement**

We need to fix the cursor movement for joystick so that it continues to move in the direction the head is facing, until the head returns to a center point. If the user’s head is turned right, the mouse should continue to move right, until the head is returned to the center.

* **Fix Screen cursor movement**

We need to fix the cursor movement so that it will move as the user turns their head. The further a user turns their head, the further the mouse should move. If the user moves their head back, it should move back with them.

* **Fix Rectangle and green dot so it follows face**

Fix the red rectangle so that it continue to follow the face as it moves. Fix the green dot so it continues to indicate the forehead point being tracked.

* **Implement show/hide of rectangle as a setting**

Enabling/disabling the rectangle should be a setting that can be changed on the fly, and not require code re-compiling.

* **Implement show/hide of green dot as a setting**

Enabling/disabling the dot should be a setting that can be changed on the fly, and not require code re-compiling.

* **Fix threading issue**

Current threads run after a set time, and don’t take into account inf the previous thread has completed. Frame and Mouse update threads should each be called to restart once the previou thread has completed. A timeout may still be needed if the previous thread finishes faster than the desired refresh is.

* **Implement cursor movement speed as a setting**

User should be able to change how fast the cursor moves compared to their movement

* **Implement frame rate as a setting**

Frame rate should be adjustable through the preferences.

* **Enable live changes through preferences menu**

Making changes to the preferences menu should take effect immediately, and not require MouseTrap to be restarted

* **Fix point mapper**

Fix errors that occur when running point mapper, and return functionality to the point mapper.

* **Mouse Click**

Enable a way for the user to click the mouse. This could be by enabling accessibility settings that click when the mouse stops moving. This could be using eye clicks:

* Left eye wink - Left click
* Right eye wink - Right click
* Left eye hold close - Drag & drop
* Right eye hold close - Scroll
* **Fix tracking to follow forehead**

Tracking is not occurring on the forehead, but insteads an arbitrary point in the center of the face frame. In order for MouseTrap to work for users to rotate their head, the tracking must be implemented on a specific facial feature (center of eye, nose, etc).