Jimmy Vang

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Electronic Projects

**Project Details/Description**

**Project Subject:** Building an Autonomous Robot

**Author(s):** Jimmy Vang

**Main Objective:** Build an autonomous robot that is able to follow a set of given instructions using a camera.

**(Optional) Other Objectives:** Program machine learning to the robot.

Program the robot to be able to explore and wander.

Program the bot to do voice recognition.

**Estimated Cost (Budget):** $241.15

**Responsibilities:**

Jimmy Vang – All objectives.

**Plan/Timeline:**

Key:

* - Finished
* - Not Finished

Objective 1: Research and Buy.

* - Research
* - Buy Robot Parts.

Objective 2: Design/Build Robot.

* - Design robot.
* - Build robot.

Objective 3: Learn and Study Python Coding + Program Autonomous Robot.

* - Learn the Python language.
* - Setup computer vision system for camera.
* - Setup servos for camera.
* - Program simple line follower.
* - Program face recognition.
* - Program robot to track objects.
* - Program simple obstacle avoidance. **(ON HIATUS)**
* - Program robot to follow a person. **(ON HIATUS)**
* - Program robot to see surroundings and avoid them. **(ON HIATUS)**

Objective 5: Test and Calibrate Robot.

* - Test and calibrate robot for maximum performance and errors.
* - Fix bugs and code if needed.

(Optional) Finish Other Objectives if possible.

* - Program machine learning to the robot. **(ON HIATUS)**
* - Program the robot to be able to explore and wander. **(ON HIATUS)**
* - Program the bot to do voice recognition. **(ON HIATUS)**
* - If time allows, add more objectives. **(ON HIATUS)**
* - Create User Documentation. **(ON HIATUS)**