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| **CS 360: Software Engineering** | |
| Project Evaluation | **Matthew Rasler** |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | This is an overview of our project evaluation and my personal details. Details below. | | | | | | **Topic** | The Claw: A Robotic Egg Size Classifier | | **Project Members** | Mark Parker, Matthew Rasler, Andrew Habegger | | **Project Manager** | Matthew Rasler | | **Aspects** | Motion Analysis, Object Tracking, Image Recognition, Hardware Drivers | | **Subjects** | Computer Science, Robotics, Graphics | | **Development Time** | 12 months | | **Objective** | Fully functional, minimal error, robotic device. | | **Sponsor** | Tim Habegger, Proprietor of Habegger Poultry | | **Personal Details** | | |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | *Interests* | |  |  | | --- | --- | | • | Uses cutting edge technology | | • | Potentially profitable | | • | Spans multiple Computer Science disciplines to accomplish a singular task | | • | Has tangible and measurable outcomes | | |  | *Qualifications* | |  |  | | --- | --- | | • | Experienced Software Developer, Confident in Java, C/C++, and Object Oriented Paradigm, HTML, CSS, PHP | | • | Mathematics and Physics background, with experience applying Mathematical concepts to real-world projects | | |  | *Expectations* | |  |  | | --- | --- | | • | Success collaborating multiple members and developmental streams in the development of a software based project | | • | Hone software development skills, including C based languages, and learn new languages or programs that help accelerate the development of this concept. | |   Creation of a system that mechanizes the process of egg sorting through a video feed, video recognition, and a mechanized control arm that isolates appropriate sized chicken eggs for packaging along a conveyor belt.  Software will need to be developed that has the ability to recognize with a high degree of accuracy the size of an egg at any orientation as it moves down a conveyor, certain eggs of a size limit would need to be removed from the conveyor via suction cup mechanized control arm controlled by that software that falls into user specified size parameters.  Also via some input (possible the same video feed, or another camera with similar algorithms) should be able to monitor the flow off eggs, determining and notifying (possibly a way to correct the situation, or via notification that prompts user support) when an egg jam, or egg flow problem results.   * Pictures -- <http://ge.tt/87WlRb7?c> * Software -- <http://ge.tt/9oRwRb7?c> | | | | **Project Details** | | | **Resources** | | |  |  |  |  |  | | |