System Name: Robotic Shape Sorter

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| Subsystem Type | Block Name | Description | Est Cost and Completion | Developer |
| Hardware | 7V Servo Motors | 180 degree servo motor, 20kg\*cm torque load | $45, parts should arrive a week after project assignment | Lewan Soul |
| Arduino Uno | Basic Arduino for sending signals to the Servos, works in tandem with Arduino software | $12, should arrive about a week after project assignment | Arduino |
| Laptop | Fujitsu brand laptop | Provided by LTU, product ready at project start | Fujitsu, Microsoft |
| 3D Printed Plastic Parts | PLA 3D printed plastic parts, will contain the 3 arms, base, and rotating platform | $15, will be completed after 2 weeks, may need some reprints, which is why it needs the extra week | Makerbot |
| 5V Magnet | Standard 5V electromagnet | $10, will arrive 1 week after project assignment | UXCell |
| Mechanical Structure | Arm is assembled with the 3D printed parts and the servo motors attached and wired into the Arduino | $85 dollars, will be completed after 6 weeks of project assignment | Griff Sutton |
| Software | Visual Studio | C# coding program that can has a GUI program and EmguCV which has visual processing tools | Provided by LTU who assigned the assignment. Completed at the end of project, as this will be a bulk of the work | Microsoft |
| Arduino Sketch | Allows serial communication between Visual Studio and sends signals to the Servo Motors | Provided by LTU who assigned the assignment.  Completed at the end of project, as this will be a bulk of the work | Arduino |

Arduino Uno

Mechanical Structure

3D Printed Plastic

Visual Studio

5V Magnet

Laptop

7V Servo Motors

Arduino Sketch

Hardware

Software

Robotic System