

Subsystem Name	Block Name	Short Description	Est. Completion data & cost	Developer Name(s)
Hardware	Camera	A mounted camera above the target area	Provided	Logitech
	Completed Robot	Built of a DC motor, 2 servos, an electromagnet, and other components, it is designed to pick up and transport shapes to their designated piles	\$79.82 Completed 12/11/19	Dorie Coggin
	Arduino	Uses Arduino code to activate the motors in order to move to the shapes location and pick them up	Provided	Arduino
	Simple Motor Controller	Uses serial communication to communicate with the Arduino board to move the DC motor	\$47.94	Pololu
	Laptop	Communicates C# and Arduino code to the robot. Connects directly to the Arduino and the mounted camera	Provided	Lawrence Tech
Software	C# code	Interprets the data in the target area to identify shapes and their location. Communicates this information to Arduino Code	Completed 12/11/19	Dorie Coggin
	Arduino Code	Coordinates of shapes are communicated from C# code, then the Arduino code instructs the robot arm to move.	Completed 12/11/19	Dorie Coggin
	Simple Motor Controller Code	Communicates with the Arduino code to determine how far the DC Motor moves	Completed 12/11/19	Dorie Coggin