AME 30358 – Score Sheet

M10 – RC Retrieval Vehicle

Student Name(s):_____

The following items will be *demonstrated* to the lab instructor during the allotted lab time. Credit will not be given for portions completed outside of lab.

Item and Description	Points Awarded	Possible Points
Subsystem A: Electrical Powertrain The motors, battery, fuses, remote kill switch, and RC receiver are all correctly connected to the Cytron motor driver board. The remote control can be used to turn the motors.		5
Subsystem B: Chassis and Vehicle Structure The chassis, motor mounts, motors, wheels, etc. are all securely mounted.		3
Subsystem C: Remote Controls and HMI The student is able to drive the vehicle around the lab in a slow and controlled fashion.		5
Subsystem D: Robotic Gripper The gripper is correctly assembled. It can be opened and closed using the knob at the top of the remote control.		3
Subsystem E: Mechanical Arm The gripper is securely mounted to the end of a mechanical arm. The mechanical arm can be raised and lowered from the vehicle chassis the remote.		3
Design Challenge 1 – 4-bar Mechanism A 4-bar mechanism has been implemented for raising and lowering the robotic arm.		4
Design Challenge 2 – Retrieval The vehicle is able to drive to a can, pick it up, and place it in the plastic basket.		5
Clean-up The vehicle was completely disassembled and all parts were put away in their appropriate locations. The students returned the lab bench to its initial state.		2
TOTAL		30