* To reduce power consumption and time consumption.
* To reduce human effort.
* To reduce noise and air pollution as it uses conventional source of energy (solar energy).
* The self- powered objective is to come up with a cutter that is portable, durable, easy to operate and maintain.
* It also aims to design a self- powered cutter of electrical source, a cordless electric grass mower.
* To implement agricultural automation.
* To enhance safety.

The solar panel is used to charge battery and supply power to the circuit which is connected with Arduino board. Ultrasonic sensor is used to detect obstacles which are interfaced with Arduino and all the motors are connected to battery and Arduino.

The grass cutter and vehicle motors are interfaced to Arduino that controls the working of all the motors. It is also interfaced to an Ultrasonic sensor for object detection. The Arduino controller moves the vehicle motors in forward direction in case no obstacle is detected. On obstacle detection ultrasonic sensor monitors it and the controller thus stops the grass cuter motor so as to avoid any damage to the object/human/animal. Controller then turns the robotic vehicle off until it gets clear of the object and then moves the grass cutter in forward direction again.

In our project we are trying to make a daily purpose robot which is able to cut the grasses in lawn. The system will have some automation work for guidance and other obstacle detection. The system will have a power source that is battery and a solar panel will be attached on the top of the robot. Moving the grass cutters with a standard motor powered grass cutters is an inconvenience, and no one takes pleasure in it. Cutting grass cannot be easily accomplished by elderly, younger, grass cutter moving with engine create noise pollution due to the loud engine, and local air pollution due to the combustion in the engine. Also, a motor powered engine requires periodic maintenance such as changing the engine oil. Even though electric solar grass are environmentally friendly, they too can be an inconvenience. Along with motor powered grass cutter, electric grass cutters are also hazardous and cannot be easily used by all. The prototype will be charged from sun by using solar panels.