

ABSTRACT

Spinach vegetables are plants that are planted for the consumption of leaves. In some developing countries, spinach has many nutritional content that is good for the body. But at this time, the land used for planting plants is very few due to the large number of residential development or public facilities. The solution to this problem is to grow spinach vegetables indoors using the help of LED RGB as an alternative to sunlight sources so that plants can still perform the photosynthesis process properly.

In the final project, a system was designed that allows monitoring and controlling the state of spinach vegetables through remote control using.

Testing this final project can be concluded that the greater the intensity of light given to the plant the faster the growth of the plant. In plants given a maximum high red light intensity of plants 12.1 cm, In plants given a maximum high blue light intensity of plants 9.8 cm, In plants given a maximum high green light intensity of plants 11.6 cm, In plants given a combined color intensity of the plant height of 10.9 cm. As well as being able to control and monitor using android apps is not limited by distance as long as the user is connected to the internet.

keywords : Light Intensity, Vegetable Spinach, controlling, monitoring, LED RGB, android