



Cotton-harvesting robot

AUTHOR: ОЛЕГ ПЕМНЁВ

Prototype combine design



- ▶ the prototype harvester's initial design, which consists of a vacuum system that sucks the bolls from cotton plants and deposits the bolls into a storage bin made from a modified five-gallon bucket with a sealed lid.

What is this robot for?



The robot is programmed to go to certain places on the field to collect mature cotton balls.

Robot power



UGVs are powered by 24 V batteries and have a 5 V, 12 V and 24 V power distribution on the device. Depending on the payload, these vehicles can travel at a speed of about 2 mph for 2–3 hours before recharging is required.

Creating a robot



- ▶ 3-D printer was used to construct the suction inlets, as well as other parts needed for the harvester.

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- ▶ The cost of prototypes of the robotic cotton harvester, will be about \$ 4000.

Great benefit



- ▶ Cotton-harvesting robot is a big help for farmers growing cotton.

The build quality of the robot



- ▶ The cotton harvester robot was successfully assembled and tested on a field within the first three months of its development.

Do not spoil the soil



- ▶ Since robots do not need a human driver, there is no need to maximize the efficiency of the driver, so the machines can be smaller and lighter, thus producing less soil compaction.



- ▶ Several small robots can do the work of one large manned machine.

Thank you for your attention !

