The Farm of the Future...

**Sustains domestic agriculture**
Applying the power of robotics to completely automate common farming tasks will help American farmers to significantly lower their operating costs, reduce their need for labor, and increase their efficiency and yields. It will allow American agriculture to remain competitive worldwide.

**Helps small family farmers**
Using robotics to reduce costs and increase productivity will benefit family farmers, too. It will enable small farms (like most of Pennsylvania’s farms) to compete globally. It will also help farmers to satisfy the growing demand for locally-produced food. This can mean the difference between a viable family farm and yet another subdivision.

**Facilitates 24/7 operations**
Farm robots can work all day and all night and don’t need weekends and holidays off.

**Improves safety**
Unlike current farm equipment, robots can run without an operator riding on the machine. They will be able to work independently; a person will intervene only if problems arise. Farmers will not have to constantly work in proximity to dangerous machines and chemicals, making farming safer.

**Reduces labor needs**
Automating farming tasks helps to control labor costs and reduces dependence on seasonal labor. Farm robots will be able to perform jobs that only humans have done, like harvesting crops that require delicate handling (such as orchard fruit), planting and harvesting nursery plants, scouting plants for disease, and more.

**Reduces chemical usage**
Spraying can be done day or night whenever winds drop, reducing usage. Under computer control, pesticides and herbicides can be sprayed precisely where they are needed to minimize waste and runoff.

**Assists in precision pest management**
Farm robots can be key components of an integrated pest management system. They can monitor plants throughout their life cycle for proper growth and scout for pest and disease damage. This helps farmers to detect these problems early, while they’re more manageable.

**Enables plant-level management**
Life cycle monitoring also allows farm robots to customize applications of fertilizer, pesticide, and herbicide to individual plants, maximizing their yield.

**Allows selective harvesting**
Farm robots can selectively harvest fruits and vegetables at the best time for picking. This maximizes the quality (and selling price) of farm produce.