

# Moth.NET

Zsigo, Miklos (School: Krudy Gyula High school)

Pests can ruin every healthy tree's crop within 10-15 days. This huge loss can only be detected at harvest season. If the pests have already got inside the fruits or the fruits had fallen down prior to the time of the harvest If pest-control is unconscious, 50-75% loss may occur. We would like to save the product. In Szabolcs-Szatmár-Bereg county the most common fruit production is apple. Codling moth can cause significant damage to the crops. Codling moths damage the apple directly and they are expected during whole year. If there are signs of any nuisance we are not able to protect the crops anymore, because in this case they protect themselves from chemicals. The most important part of protection against pests is prevention. Protection can be successful thanks to insects killers and expert's prognosis. Pheromone traps developed against wrong-doers are very practical. They are easy to use, but the problem is that the manufacturer has to check these traps repeatedly to find out about the infection, and when one has to spray the trees with the right chemicals. How is it possible to keep track about all of the pests inside the fruit? – I developed a system which can monitor the insect traps. In this trap there is a high quality camera and a monitoring microcontroller (in this case a Raspberry Pi 3). This system takes pictures inside from the traps either automatically or remotely controlled. These pictures are uploaded to an online database, which provides is an interface for the manufacturers to check these pictures. On this interface they can check the data and camera, the pictures. They can check it back to months ago, so they can see the difference between the pictures.