Surveillance and Spy Robot

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In many fields of work humans have been replaced by robots. So why not have spy robots that can replace human spies. This project is about making a spy robot that can be controlled using a computer software. The project is designed by controlling a RC car via computer USB port using software designed in c#. The car has been fixed with a camera because the function is to spy. The computer sends signals to a microcontroller which processes it and then transmits it via RF to a decoder on the car which then drives the car with an L293d H-bridge. The computer software not only shows the video from the robot but can also recognize faces. The face recognition part has been made using the Emgu CV. Emgu CV is a cross platform .Net wrapper to the Intel Open CV image processing library. Allowing Open CV functions to be called from .NET compatible languages such as C#, VB, VC++, etc. This wrapper allows us to do many things like face detection, motion detection, pedestrian detection, video surveillance, traffic sign recognition and many more. The robot can also be controlled using voice commands because the software has the ability of speech recognition. The speech recognition part is made using the system.speech.recognition in c#. The car also carries a bright surveillance light for night time spying. Future updates: Future updates will include: • Adding gps to the car to get its location on google earth. • Increasing the range of the device. (current range is max 100m) • Creating picture analysis software that can process the image and en-circle suspicious areas. • Adding a microphone to hear the sounds in the surrounding areas.

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