

Emery Ku

E90 Topic Selection Memo:

I propose to construct a helicopter for my E90. I would use the materials available to hobbyists in constructing the body and obtaining motors, rotors, sensors etc. The power supply and signal amplifier would be built from commercially available integrated circuits and components. The design component of the project comes primarily in the implementation of control algorithms to stabilise and direct the helicopter. The controller would act with respect to six degrees of freedom (roll, pitch, and yaw). In addition, the system would accept programmed commands (turn 360 degrees) or manual command entry (fly forward).

I will be working with Professor Cheever.