Automatic fan – Introductory report

Our idea was to produce an automatic fan that turns on when the ambient temperature of the room has passed a certain threshold.

When designing our product, we knew from experience that it must have these three properties:

1. The base must be supportive enough for the system to not fall over.
2. The chassis must be big enough to contain the components
3. The tower must be tall to give clearance for the propeller
4. The body must be strong enough to withstand the stress from the spinning propeller.

Our concept design ended up having a round base that holds all the components and a tower that holds the motor and propeller. We might have to add some supporting structuring to the inside of the tower based on how the first prototype performs.

We had thought about other shapes for the housing but concluded that the usual fan design worked the best. For example, we thought about having the fan housing being a box, but that design would probably have problems with air flow to the propeller, and in general it looked unwieldy.

Bill of materials:

- Arduino Uno R3
- Breadboard Small
- DC motor
- Temperature Sensor - TMP36
- Power supply

Concept art of the design