Motor Team Monday Deliverables

Friday, 4 October 2013

1 Schemata

1.1 Input Side JSON

The input side arduino will communicate with the input side control program by passing simple JSON objects over the serial line. These JSON objects will have a single field, `tempK`, containing a scalar temperature value in Kelvin.

1.2 Database

The database will store readings from the input side and feedback from the control side. The input side data will be stored in a table named `temp_readings`, with columns `arduino_id` (integer), `reading_time_utc` (UTC timestamp), and `temp_kelvin` (real scalar value in Kelvin). The control side data will be stored in a table names `motor_readings` with columns `arduino_id` (integer), `reading_time_utc` (UTC timestamp), and `motor_volts` (real scalar value in volts).

2 Group Breakdown

- *Input Side (Arduino and Control Program):* Michael Bass
- *Visualization:* Taahir Ahmed, Narayanan
- *Database:* Taahir Ahmed, Ashton, Desmond
- *Control:* Dipanjan, Jeff, Clayton

3 Database Credentials

We have a database named `motor_team` on `fulla.ece.tamu.edu`, with user `motor_team_user` and password `motor_team_password`. You will need to be on the campus network or have a VPN connection to campus to connect to the database.

4 Deliverables for Monday, 7 October 2013

- *Input Side:* Send JSON data from Arduino and unwrap it in the control program.
- *Visualization:* Produce a graph updating from some source.
- *Database:* Set up database.
- *Control:* Filtering and conditioning logic.