

## Steele Muchemore-Allen ECE 331 HW#09

1) This homework was written in vim.

```
2) #sqlite3 boarddata.db
    #CREATE TABLE data (TEMP1 REAL, IR INTEGER, FULL INTEGER, VIS INTEGER,
    LUX INTEGER, TEMP2 INTEGER, PRESSURE INTEGER, HUMID INTEGER,
    dt datetime default current_timestamp);
```

3)

```
#!/usr/bin/perl
```

```
# Steele Muchemore-Allen ECE 331
# Perl script that grabs data from serial port
# and imports it into an sqlite database table
```

```
use Device::SerialPort;
use DBI;
use strict;
```

```
#Opens the serial device for communication
my $port = new Device::SerialPort("/dev/ttyACM0")
    or die "Can't open /dev/ttyACM0: ${!}\n";
```

```
#Sends a character to recieve data from device
$port->write('a');
```

```
#Looks for device being sent by device
my $data = $port->lookfor();
```

```
#Removes newlines and parses data
chomp($data);
my @list = split(/[ |]+/, $data);
```

```
#Removes data for clear run next time
$port->lookclear;
```

```
#opens the database for manipulation
my $driver = "SQLite";
my $database = "boarddata.db";
my $dsn = "DBI:$driver:dbname=$database";
my $userid = "";
my $password = "";
my $dbh = DBI->connect($dsn, $userid, $password, { RaiseError => 1 })
    or die $DBI::errstr;
```

```
#Sends parsed data to the pre-created table, with the current time included
my $stmt = qq(INSERT INTO data (TEMP1,IR,FULL,VIS,LUX,TEMP2,PRESSURE,HUMID, dt)
                VALUES ($list[0], $list[1], $list[2], $list[3], $list[4], $list[5],
                $list[6], $list[7], CURRENT_TIMESTAMP));
my $rv = $dbh->do($stmt) or die $DBI::errstr;
```

```
#Releases the database and serial port
$dbh->disconnect();
$port->close or warn "close failed";
```

4) This homework was printed with 'enscript'.