

# ECE Design Day Approaches, Spring, 2006

by Erik Goodman

Preparations were running apace...  
The lab was about out of space...  
There were teams that looked beaten  
And pizza half-eaten—  
But no one dropped out of the race.

For Design Day was soon to arrive.  
The thought gave the students more drive—  
There'd be no delays,  
And no instant replays...  
On Thursday, their show would be "live."

And as I looked over this madness,  
I began to reflect without sadness:  
Just a few days of stress  
And the teams leave this mess  
To enjoy graduation with gladness.

They'll leave *alma mater* at last,  
To enter the working world's cast.  
The profs will all miss them—  
It's rare that we diss them.  
They were *great*, now that it's in the past.

As I dozed off to sleep Wednesday night,  
I was drawn to a far-away light...  
And as I surveyed,  
It looked like a parade –  
But it wasn't a comfortable sight...

It looked like some poor engineers  
Who were tired, and almost in tears.  
Their circuits weren't working,  
And their sponsors were lurking,  
And it stirred up the worst of their fears.

'Cause Design Day was coming tomorrow  
And with all they could beg, steal, or borrow  
They didn't see how  
It would ever work now...  
They were dreading a day full of sorrow.

But dreams can be marvelous things –

No one knows what the next chapter brings:  
A vision appeared  
And the problems they feared  
Were not abstract, but demons with wings.

Many imps—Maxwell’s Demons—arrived  
But from Maxwell’s *equations* derived.  
Their digital faces  
And analog traces  
Were as strange as I’ve ever contrived.

And Gregg and Roxanne and Brian  
Came in with them, and clearly were tryin’  
To keep them in check  
So the imps couldn’t wreck  
All the boards that the students were fryin’.

The imps went from benchtop to table  
Their first target – Team Eight’s spool of cable.  
They tried to ensnare it  
But Team Eight could repair it,  
So they left it for something less stable.

Next they went for the fireworks system.  
But Team Four wasn’t scared, and just dissed ‘em.  
The spread-spectrum comm  
Was really “the Bomb,”  
So, in essence, the demons just missed ‘em.

Then the next—Continental Team Nine.  
The demons attacked them in line.  
They swooped in to pester  
The airbag crash tester,  
But it ended up working just fine.

Then the imps got a little bit wild –  
They went for Team Six’s brainchild –  
They attacked all its senses  
And ego defenses,  
But the brave robot face simply smiled.

The demons were really perplexed  
And became justifiably vexed  
When Five’s robot sensed heat,  
Took their pictures, complete,  
Sent them out, and prepared for the next.

Then the following team the imps met  
Had a Mars Robot Locator set.  
When the imps would attack it,  
Team One made a racket  
With its sonar, and it hasn't failed yet.

Team Seven's was sure to be fun!  
"Plug'n'Play" – the concept was one  
That an imp could reverse –  
He need not interfere –  
MS Windows showed it can't be done.

But this team, with the BorgWarner fan,  
Didn't buy it, and said that, "We can!"  
The controller they made  
To control the fan blade  
Seemed to work just according to plan!

Next the robot path planner was found,  
And Team Two bravely fought to hold ground.  
Their FPGA  
Was still working away  
When the demons stopped fooling around.

Now the Brooks Team was really prepared.  
When the imps came, they weren't even scared!  
The high current flowing  
Got the demons a-glowing;  
When they shrieked and ran, nobody cared!

Team Eleven's folks had as their goal  
To capture each imp's little soul  
With their sensor devices,  
And what's really nice is  
Their TI chips worked, on the whole.

And their wireless brethren Team Ten  
Caught the imp traces, also, and then  
They transmitted the stuff  
And received just enough  
To assemble the signal again.

But this step meant the demons were done!  
The design teams' low entropy won!  
The error correction  
Zapped the demons' protection

And Design Day was going to be fun!

And then I awoke from my dreams.  
Design Day, as tough as it seems,  
Would soon all be behind us,  
And our memories remind us  
Of the stuff that we did with our teams.

When I read this, Design Day is through.  
I hope that it went well for you...  
My congrats to you all!  
Get some sleep 'fore you fall!  
And enjoy graduation day, too.