

Control Systems

Skills Demonstration – Task 04 – 2015

Task

Create a circuit and controlling program which functions as a speech timer circuit for conferences:

In idle mode (no one at podium), there is a red light,
When a push-button is activated, a light goes green and a timer starts,
After a fixed time (eg 2 minutes) the light changes to amber,
After a further fixed time (eg 30 seconds) the light flashes.
After a further fixed time (eg 30 seconds) the light changes to red.

The circuit mimics a pressure plate and light combination at a podium in a conference centre. The purpose of the combination is to give a clear visual indication to the speaker of when they must finish speaking. Stepping off the pressure plate, represented by the switch, resets the timer.

Requires (list components)

Code (or reference)

Circuit



Notes

Senior
College
Clonmel