



Cystadleuaeth Sgiliau Cymru
Skills Competition Wales

Automation (Demo Competition)

<p>Tasg Cylched Niwmatig</p> <p>1 awr</p> <p>Adeiladu cylched niwmatig ar gyfer trefn gweithred penodol (e.e. [A+, B+, B-, A-]), gan ddilyn rhestr o ofynion (e.e. pwysedd cyflenwad, defnyddio falfiau penodol).</p> <p>Bydd gofyn i'r cystadleuwyr fod yn gyfarwydd â:</p> <ul style="list-style-type: none">• Silindrau gweithred sengl a dwbl• Falfiau rheoli cyfeiriad<ul style="list-style-type: none">o Gweithred pilot niwmatigo Gweithred lefer/rholio a gwthio• Falfiau Rhesymeg (AC, NEU)• Rheoli cyflymder gyda falfiau rheoli llif	<p>Pneumatic Circuit Task</p> <p>1 hour</p> <p>Build a pneumatic circuit for a given sequence (e.g. [A+, B+, B-, A-]), following a list of requirements (e.g. supply pressure, use of specific valves).</p> <p>The competitors will be expected to be familiar with:</p> <ul style="list-style-type: none">• Single and double acting cylinders• Direction control valves<ul style="list-style-type: none">o Pneumatic pilot actuationo Roller/lever and press actuation• Logic valves (AND, OR)• Control of Speed with flow control valves
<p>Tasg Cylched Electro-Niwmatig</p> <p>1 awr 15 munud</p> <p>Adeiladu cylched electro-niwmatig ar gyfer trefn gweithred penodol, gan ddilyn rhestr o ofynion.</p> <p>Bydd gofyn i'r cystadleuwyr fod yn gyfarwydd â:</p> <ul style="list-style-type: none">• Defnyddio switsys rhedyn magnetig a meicro-switsys i adnabod lleoliad piston• Falfiau rheoli cyfeiriad, gweithred solenoid• Switsys gwthio enydol (contactau agored/caeëdig)• Rheolaeth anuniongyrchol gyda relái• Cylchedau latsio	<p>Electro-pneumatic Circuit Task</p> <p>1 hour 15 minutes</p> <p>Build an electro-pneumatic circuit for a given sequence, following a list of requirements.</p> <p>The competitors will be expected to be familiar with:</p> <ul style="list-style-type: none">• Using magnetic reed switches and micro-switches to identify piston position• Directional control valves, solenoid actuation• Momentary push switches (open/closed contacts)• Indirect control via relay• Latching circuits