

An Introduction to Omega SAT

Swimming Victoria
Regional Development Day
Peter Krenz Leisure Centre
Napier St, Eaglehawk

Saturday October 18th 2014
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Central Victoria Swimming Inc.

An Introduction to Omega SAT

- The Hardware and Software
- Plugging it all together
- The ARES Program
- Meet Manager
- Testing that it works

An Introduction to Omega SAT

The Hardware and Software

The Omega SAT (Semi-Automatic Timing) solution is a combination of HARDWARE and SOFTWARE.

The Hardware is comprised of:-

- The power unit
- The timing unit
- The starting unit
- The timekeeper's buttons
- The loudspeakers
- A thermal printer
- Various cables
- A computer running Microsoft Windows – the ARES computer

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The Hardware and Software

The Software is comprised of:-

- The ARES computer program

The whole system can be run with just the Omega hardware and the ARES program but in all practicality its better to run it in conjunction with the Hy-tek Meet Manager program.

The Meet Manager environment is comprised of:

- A computer running Microsoft Windows
- The Meet Manager program
- A printer
- A serial cable to connect the ARES computer to the Meet Manager computer

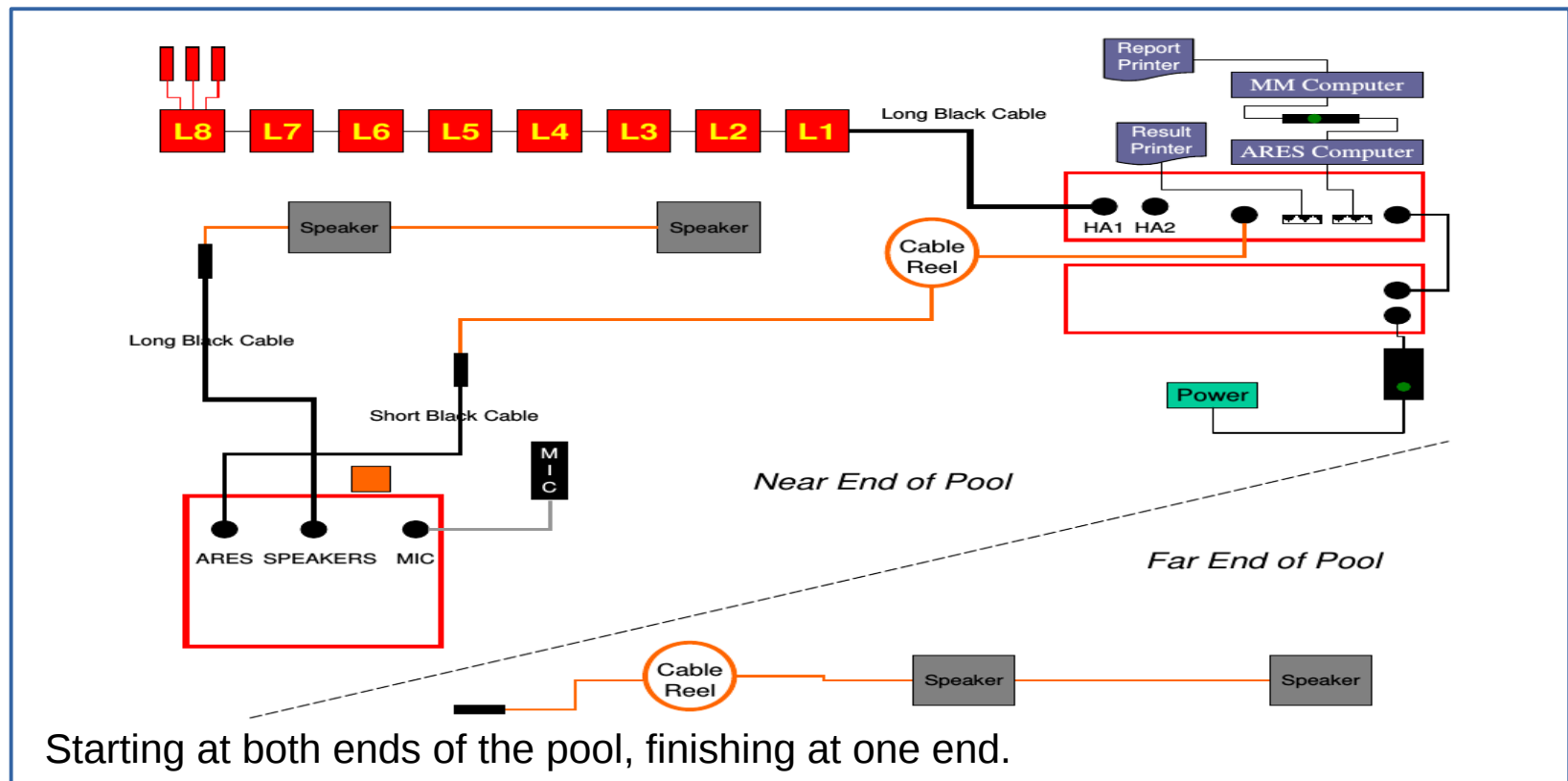
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Plugging it all together

The set-up described for “Near End of Pool” will be the same for every pool. The set-up for “Far End of Pool” may change depending on how you wish to run your Meet. In this example, the cable from the starter to the timing computer is long enough to reach the far end of the pool without disconnection. The cable to the speakers at the “Near End of the Pool” is disconnected, the starter is moved to the “Far End of the Pool” and then connected to the speakers there.



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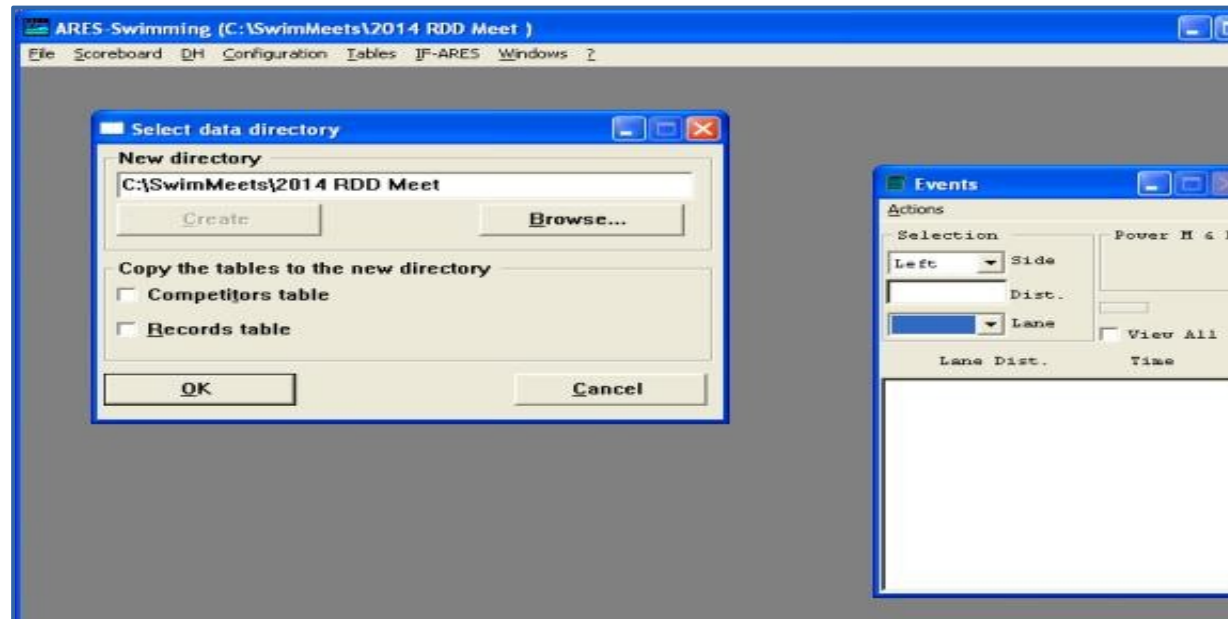
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The ARES Program

The ARES program runs on its own computer. The program is designed to:

- control the Starter (via a connection to the Timing unit)
- accept times from the Timing unit when the timekeeper button is pressed
- send times to the Meet Manager computer when requested by the MM operator

Press the ARES icon to start the program. The first thing to do is to assign a unique folder into which the Timing unit will store results as they come in from each lane.



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The ARES Program

Check that ARES is configured for the correct number of lanes being used in your pool.

Configuration → Pool Configuration

The screenshot displays the ARES Swimming software interface for a meet titled "33 TF 1 MX 400 ...". The main window shows a menu bar with "File", "Scoreboard", "DH", "Configuration", "Tables", "IF-ARES", and "Windows". Several windows are open, including "Pool Configuration", "Timetable 00:00:00", and "Actions".

The "Pool Configuration" dialog box is the central focus. It contains the following settings:

- Deck cabling: Near End only
- Near lane (HA1) at LEFT
- Near finishes only
- Pool Length: 50
- Number of lanes: 8
- Factory settings: 8 / 8, 10 / 10, 8 / 10
- No splits (ARES backup)

The "Lane numbering" section shows a table with "Module #" and "Lane #" columns, with values 1 through 8. Navigation buttons include "Rev.", "v", and "^".

The "Timetable 00:00:00" window shows a list of events under "Competition" and "Heats".

The "Actions" window shows "Selection" set to "Left", "Side" set to "Dist.", and "Lane" set to "Lane".

The "33 TF 1 MX 400 m FR" window shows a table with columns for "#", "RT", "Now", and "Nat.". The table is currently empty, with "start" selected in the "End of race" dropdown.

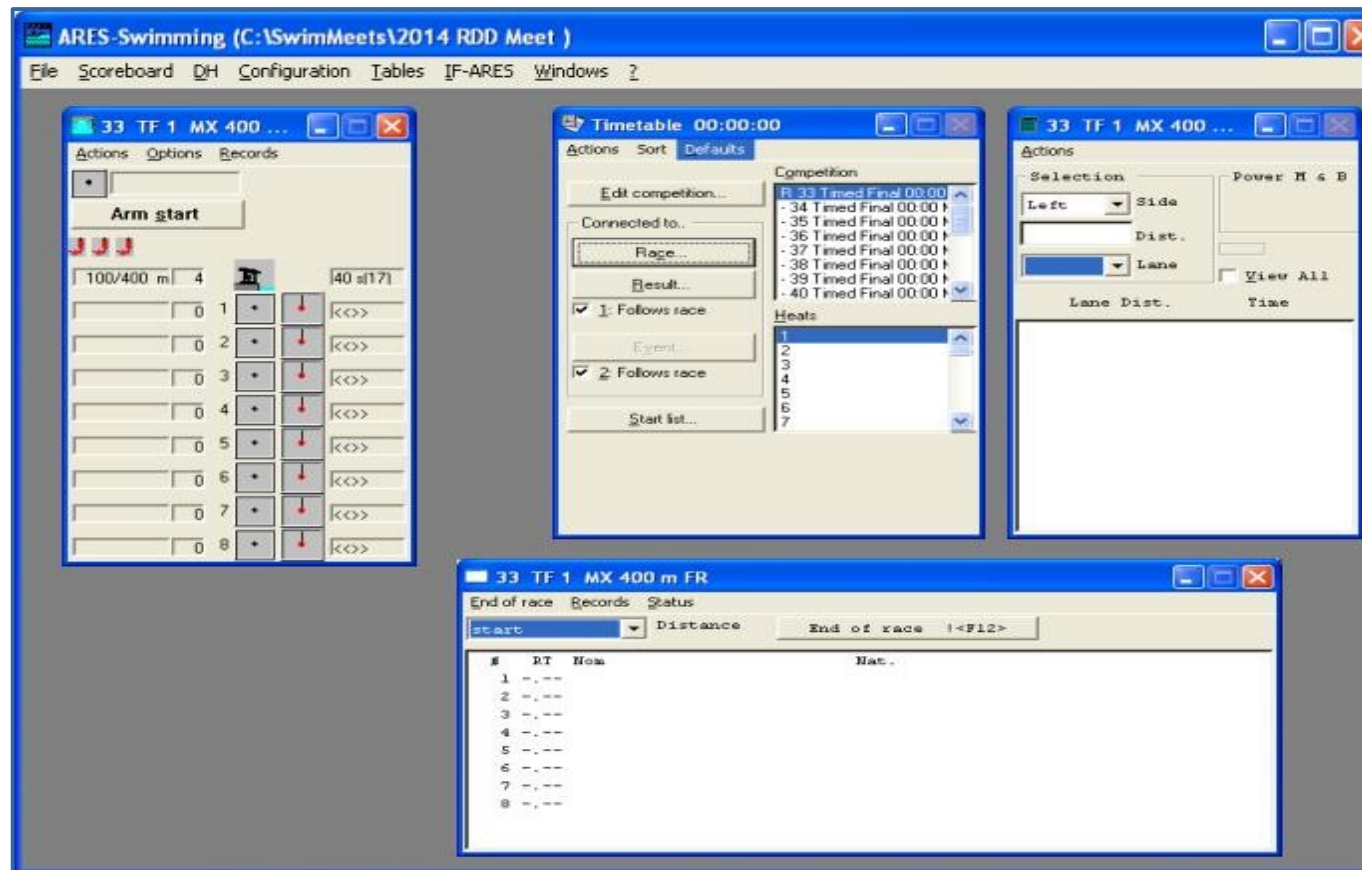
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The ARES Program

From Meet Manager, upload the events to ARES.

Run → Interfaces → Timer (ARES) → Download Events to ARES

The events will appear in the **Timetable** window



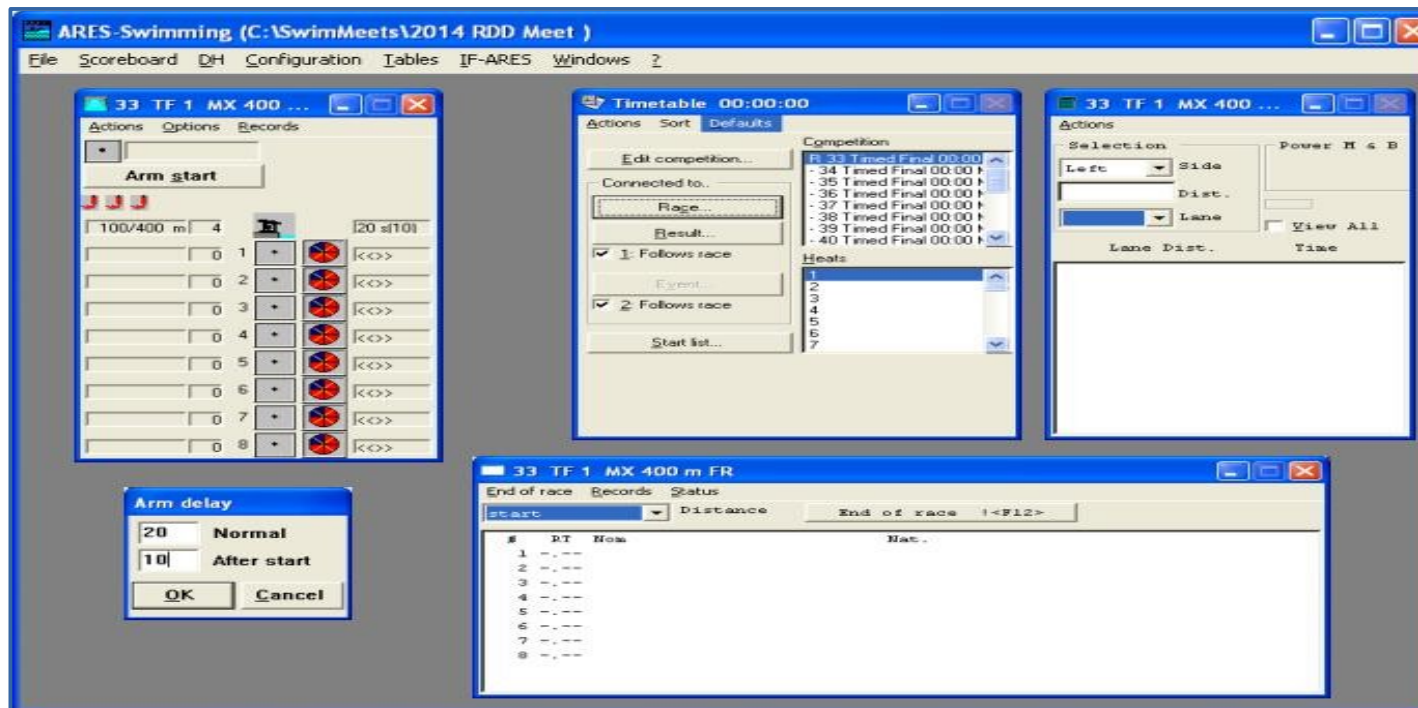
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The ARES Program

Select an event and set the **Arm Delay** to an appropriate time. This will ensure that the timekeeper buttons will not become activated until after the prescribed period of time.

Options → Arm Delay

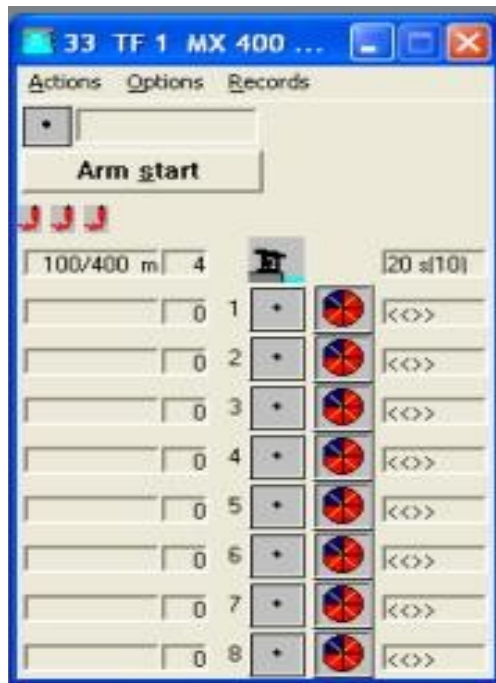
The press **Race** to activate the Starter. The Official will start the race, the “wheel” will change from blue to red after the time prescribed in the “After start” field of the Arm Delay window.



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The ARES Program

After each swimmer completes his race a "happy swimmer" icon will appear in the [Race](#) window next to his lane. The official time will also be displayed. The three times recorded by each timekeeper will be displayed on the ARES computer and printed on the thermal printer.



When all swimmers are in, press [CTRL-N](#) to proceed to the next Heat of the same Event or [CTRL-T](#) to proceed to the next Event. The Starter will be ready for the Official to start the next race.

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Meet Manager

The Meet Manager software runs on a separate computer. The Meet Manager database holds all of the information about the Meet. Information such as:-

- Swimmers names
- Meet conditions
- Events
- Heats
- Lane allocations
- Seed times

and after an event has completed

- The results

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Meet Manager

Connecting the computers

The Meet Manager computer is connected to the ARES computer by a serial cable.

This is required so that:-

- The events in Meet Manager can be uploaded to the ARES computer – saves you typing them all in.
- So that the results can be transferred from the ARES computer straight into the Meet Manager database.

Modern computers have only USB serial ports, so two 9-pin to USB conversion cables are needed. The cables connect to each other and to both computers.

You will probably need to load the appropriate driver software on each computer for the type of USB-9-pin Serial converters you have and the version of Windows you are running. You only ever do this once.

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Meet Manager

Uploading events

The RUN screen in Meet Manager is where you run the Meet from including uploading events and downloading results.

The screenshot shows the Omega SAT Meet Manager software interface. The title bar reads "Run the Meet - 2014 Eaglehawk Winter Series". The menu bar includes: Events, Athletes, Relays, Seeding, Web, Re-Score, Combine, Reports, Labels, Preferences, Interfaces, QW Module, Help. The toolbar contains icons for various functions and a checkbox for "Enter Results by Lane (Ctrl-E)".

The main window displays "Hy-Tek's MEET MANAGER Licensed to: Central Victorian Sw. Champ." and "Hy-AMRE Disabled". The central area is divided into two main sections:

EVENT LIST - All Events - LC Meters - (Session not selected)

Evt #	Rnd	Status	Event Name	Heats
33	F	Seeded	Mixed 10 & Over 400 LC Meter Free or IM Time Trial	2
34	F	Seeded	Mixed 10 & Over 200 LC Meter Stroke of Choice Time T	5
35	F	Seeded	Mixed 7 & Under 25 LC Meter Backstroke	1
36	F	Seeded	Mixed 50 LC Meter Backstroke	20
37	F	Seeded	Mixed 7 & Under 25 LC Meter Freestyle	1
38	F	Seeded	Mixed 50 LC Meter Freestyle	22
39	F	Seeded	Mixed 200 LC Meter Medley Relay	3
40	F	Seeded	Mixed 7 & Under 25 LC Meter Butterfly	1
41	F	Seeded	Mixed 50 LC Meter Butterfly	14
42	F	Seeded	Mixed 100 LC Meter Butterfly	3
43	F	Seeded	Mixed 7 & Under 25 LC Meter Breaststroke	1
44	F	Seeded	Mixed 50 LC Meter Breaststroke	13

Records

Record	Time	Date	Record Holder
			None Available

Team Scores

Rank	Gender	Score	Team

Navigation buttons: 1, 2, <|>, <<|>>

Session: F7 Splits: F9 Adjust: F6 Restore Pads: Ctrl-P .ID: Ctrl-I Race #: F2 List: Ctrl-L Re-Rank Prev Event: Ctrl-F4

Refresh: Ctrl-R Re-Name: Ctrl-R Awards: Ctrl-A Calc: Ctrl-K Unseeded: Ctrl-U Set Times: F3 Score: Ctrl-S Re-Score Next Event: Ctrl-F5

Heat 1 of 2 == Finals == Event 33 Mixed 10 and Over 400 LC Meter Free or IM Time Trial

Lane	Athlete Name	Age	Team	Seed Time	Finals Time	DQ	Exh	DGcode	HPL	PL	Pts
1						<input type="checkbox"/>	<input type="checkbox"/>				
2	Horne, Mitchell	M16	Bendigo Hawks Aquatic	NT		<input type="checkbox"/>	<input type="checkbox"/>				
3	Jones, Lachlan	M14	Gisborne Thunder	5:40.10		<input type="checkbox"/>	<input type="checkbox"/>				
4	Geers, Kiara	W13	Dye Aquatic	5:52.00		<input type="checkbox"/>	<input type="checkbox"/>				
5						<input type="checkbox"/>	<input type="checkbox"/>				
6						<input type="checkbox"/>	<input type="checkbox"/>				

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Meet Manager

Testing the connection

Once all the Omega hardware is connected and powered on you can test that the Meet Manager computer and the ARES computer are talking to each other.

Run → Interfaces → Timer (ARES) → Test Communications with ARES

IF it's all OK you'll get a message saying so. If not, check all you connections again. It's important to always connect the cable between the computers to the exact same USB ports.

Upload the Events

If the test passes you can upload the events to the ARES computer.

Run → Interfaces → Timer (ARES) → Download Events to ARES

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Testing that it all works

Run a test start – what should happen?

- The Starter's microphone will work
- The Starting light will flash
- The loudspeakers will work
- The thermal printer will spring to life and print a couple of lines
- The Arm delay count-down timer will start on the ARES computer

Next press all the buttons on each lane

- The thermal printer will print a line for each button pressed with the time recorded
- The ARES computer will display a blue “happy swimmer” icon for each lane.
- Once every lane has a “happy swimmer” the test has been successful.

Tip: Always use a 50m event for a test start. If you don't and your first event is a 200m event the times will not come across to Meet Manager. It's a bug!

Thank You

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