Can bells be rung by a machine?

The bells at St James have automated chiming mechanism for hourly clock chimes (8am to 8pm) and can also be chimed in the style of change ringing for services. They sound a little different (not as full or dynamic), because the bells are struck by a small hammer rather than a large 'clapper', and the bells do not swing at all.

What is the computer used for?

This is the branch simulator, an old PC that's connected to electromagnet sensors on the bell wheels and frame of 6 bells at St James. The bells can be rung with the clapper tied to prevent it striking the bell (no sound audible outside), but the computer can play sounds of the bells in the ringing room when the sensors pass each other and send a signal. It is not a replacement for practicing with the bells open, but we can use it for teaching bell handling and having extra practices and training courses without disturbing residents nearby.

Where are the bells?

The bell ringers pull the ropes in the ringing chamber, 42 spiral steps up the tower. The bells used to be behind the louvres at the top of the spiral staircase, but have been re-hung in 2014 in a chamber half way between.
The sound from the bells now goes up through a metal mesh floor, and past special weather proofing material screens and finally out through the louvres.

Are bell-ringers expected to go to church?

You don't have to go to church or be a Christian to ring. Some ringers are members of the church where they ring, but many others have secular views or follow a different faith. This is quite OK.

The modern Church supports many activities that involve the community outside its own members.

Everyone is encouraged (but not required) to ring for Sunday services, weddings, or other services & events in return for the pleasure that they get from ringing.

Is it an expensive hobby?

No, it is essentially FREE. Donations are always welcome of course. If you ever join the Lancashire Association there is a £10 annual membership fee that pays for your report, helps restore bells, and covers costs of LACR. Ringing excursions/outings may cost a few pounds. You are actually paid a fixed fee for wedding expenses.

Not the right type of person?

Ringers are male and female, old and young, and from all walks of life. The status of ringers reflects their ringing skill, not their age or their job.

I couldn't ring, I'm too old/young…?

You can learn from age 11, and well on into retirement. Younger people often learn a bit more quickly, but older learners are steady and persistent. We teach you at your own pace and are patient, friendly and encouraging. Whatever age you start, you can ring for the rest of your life.

Nerdy ringers?

Bell-ringing may not sound like a mainstream hobby, but ringers are just a bunch of ordinary people who enjoy the combination of learning skills with friends, just like other forms of sport, music and hobbies.

How Social?

Ringing is a team activity so you are always with others who share your interests. Ringers are also part of a much wider community – a ringer walking into almost any tower in the world (where English style ringing is performed) is welcomed and invariably invited to join in the ringing. Find out how sociable ringers can be, and join them in the pub after ringing. ☺

Curious to find out more? Come along…

We practice on Wednesday nights (7.30-9pm), and you are most welcome to visit to watch/ask or have a go.
If Wednesday is inconvenient, try these alternatives:

Ulverston (Mon), Dalton / Urswick (Tue), or Kirkby (Thur).

St James the Great, Barrow-in-Furness

Church Bell Ringing FAQs

Frequently Asked Questions

This leaflet answers some of the most frequently asked questions about church bell ringing.

Do bell-ringers get lifted into the air like the monks on the Mars bar advert?

The Mars advert is a lot of fun, but in reality bell-ringing is not so acrobatic, physically demanding, or adrenaline filled, but still offers an enjoyable physical and mental challenge.

Church bells are heavy enough to lift you off your feet, but you would be ringing the bell incorrectly if one did.

Part of the bell mechanism called the 'stay' is designed to break if struck too hard (to protect the installation). This rare event will cause the rope to shoot up through the ceiling and potentially lift the ringer off their feet. Bell-ringers are taught how to recognise this, and to let go of the rope immediately. Most ringers have never seen this happen, let alone done it themselves.

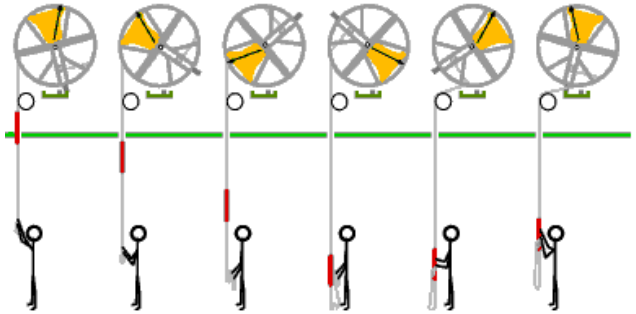
Do you just pull a rope to ring the bell?

A common misconception is that all bells ring with the open end (the mouth of the bell) facing downwards.

A bell can be 'chimed' by pulling the rope when the bell hangs down, but it is very difficult to control *when* the bell makes a sound. A church bell is typically too heavy to pause or slow at any point of swing when chiming. Chiming lends itself to the 'random' style of ringing commonly heard elsewhere in Europe.

English style church bell-ringing is characteristic by the way the bells are rung in orderly sequences, and is achieved by a simple mechanical design which has remained largely unchanged for over 400 years.

To control *when* the bell makes a sound, the bell starts from a position with the bell mouth facing upwards, and ringer uses rope/wheel to rotate the bell by 360°



The clapper strikes the bell at the end of the rotation. While balanced upside-down the ringer can wait or pull rope earlier to fine-tune when their bell rings next time

The essential skills needed to control a bell involve pulling the rope with the correct strength, keeping the rope taut, listening for the sound at the end of the 'stroke' and sensing when the bell reaches the upside-down balance point (without being able to see the bell)

Almost anyone can learn to do this with tuition and practice. This is just the beginning, and there is more to learn to ring together as a team, and to keep you interested and entertained for a lifetime!

So ringing is much more than just pulling a rope.

Do ringers need to be strong?

No. Most people of average build (age 10 upwards) will be physically capable of ringing our church bells.

The size of the bell wheel gives a mechanical advantage like a long lever, to make it much easier to swing a bell.

Each bell is balanced upside-down, and swings full circle on ball bearings until upside-down again.

Most of the energy needed to complete this revolution is stored in the bell at the start. The bell-ringer just needs to add enough to complete the end of the swing.

It is the design of this mechanism which allows a person to ring and control a bell 10x your own weight. Most first-time bell-ringers comment on how they expected to have to pull harder on the rope.

Is bell ringing hard work and exhausting?

Not normally. The exception is where the bells are very heavy or there is something wrong with them.
St James' bells are not too heavy and were restored in 2014. They are lovely bells and very easy to ring.

Sometimes learners use more effort than they need, but as they improve they use less effort.

Watch a skilful ringer, and you will see a smooth, almost effortless performance. Mastering bell control requires technique, not brute force.

Can ringing be dangerous?

Ringing a church bell is quite safe when rung properly.

There are hazards just like operating any other heavy equipment. This is why each person is carefully trained how to ring bells under close supervision & tuition.

When a bell hangs downwards it is very safe.
When a bell is upside-down (mouth upwards) the bell and its' rope can be dangerous, but only if you do not know what you're doing. The rope looks the same, so please don't touch, or grab a bell rope without close supervision of an experienced bell-ringer.

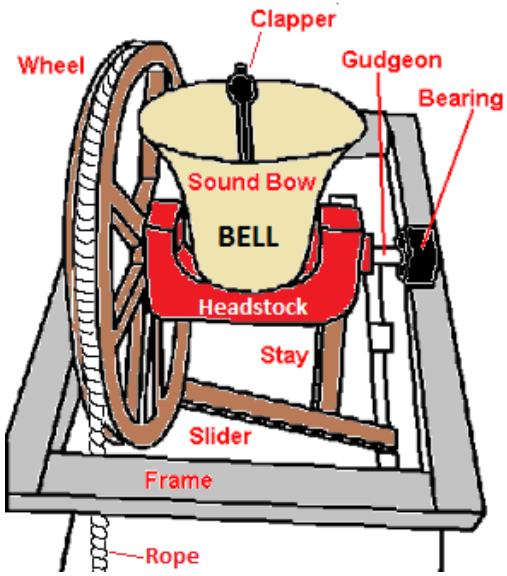
What is a bell made of?

Bells are cast from a special alloy of bronze (typically 80% copper and 20% tin) to strengthen two otherwise soft metals, and the alloy has excellent resonant qualities.

What do I see when I look at the bell?

There are a lot of terms that are used for different parts of the bell mechanism.

Here are a few of the main ones:



What notes do the bells ring?

The 8 bells at St James bells are tuned to an octave of F major (F, G, A, Bb, C, D, E, F).

However each bell does not just have a single pitch, but a chord of harmonising notes at various volumes.
The loudest most predominant note is called the 'prime' or 'fundamental', and there is normally a 'hum' note at lower pitch, and also 3rd, 5th, and octave above.

Each of these notes is produced from a different part of the bell, the loudest from where the clapper strikes the 'soundbow' near the edge of the bell, and higher pitch notes from further up the bell towards the shoulder.