

SCOTTISH MEN'S SHEDS ASSOCIATION

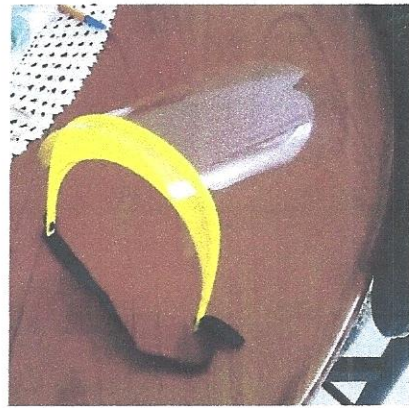
Kinross and District Men's Shed 3D prints protective face shields for key workers

Kinross & District Men's Shed (KDMS) is producing face shields to protect key workers on the front line during the Coronavirus pandemic.

This vital piece of kit provides a barrier to stop workers from touching their face and also protection from the patient if they cough or sneeze.

KDMS is using 3D printers to make the Polylactic Acid (PLA) face shields and requests are coming in at a tremendous rate from the community. KDMS Chairman, David Connor, said: "KDMS wanted to help and one of our Shedders, Jim Forbes, started working in his shed at home to come up with a solution to meet the demand for this life-saving protective equipment. The Shedders have really stepped up and there is a team of around 12-15 of us involved in taking and recording orders, administration, printing, assembly, quality checks and delivery. More and more Shedders are becoming involved each day to lend a helping hand to this cause.

"Orders are coming in thick and fast from NHS workers, carers, testing hubs, postal workers and shop workers across Ayrshire, Perthshire, Fife, Forth Valley and Clackmannanshire. We had to set up a business model quickly and efficiently to get this right. Everything is done safely from our homes and we communicate through phone and video calls. We have fulfilled over 100 orders so far and now have an order for 100 more. We have been receiving photographs and video calls from the key workers when they have received their face shields and it makes everything that we are doing worthwhile."



Jim Forbes, 81, said: "I had a vision to do this and researched face shields online and came up with a quality product – quick to produce, washable/reusable and light - consisting of four simple parts: the shield's top frame; standard A4 acetate sheet protector screen; bottom support; and elastic to keep the shield firmly on the face. An advantage of the design is the bridge between the forehead and the face plate which greatly reduces breath aerosol mist (possibly infected) from entering the users' eyes. This 3D printed version needs no tools to assemble except for a pair of scissors to trim the face plate. For Sheddors with no access to a 3D printer, we also developed a second product where no tools are required other than scissors.

"Every single item is checked and the shield comes with an instruction leaflet for the end user. We initially had our one Shed 3D printer and my machine but now Culture Perth & Kinross has dedicated their five printers bringing us up to seven solely dedicated to this task. A local lady in Powmill who has been printing hundreds of shields has also bought herself another one and offered that second printer to help us if she has any free space. We are now able to produce an output of 40-50 shields per day. When it comes to delivery, there is obviously no contact. The order is simply placed in our gardens when we are notified that the person is on their way to collect."

Sheddors have been creating the products at home but are running low on supplies and have set up a [Go Fund Me page](#) to pay for much-needed supplies. The Shed has already raised over £2,000 towards materials to date.

KDMS has created assembly instructions, spreadsheets, instruction leaflet and 3D Printer files (STL files and G-codes) that it is happy to share with other Sheddors interested in becoming involved to help with their orders or wishing to replicate the model in their local area.



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